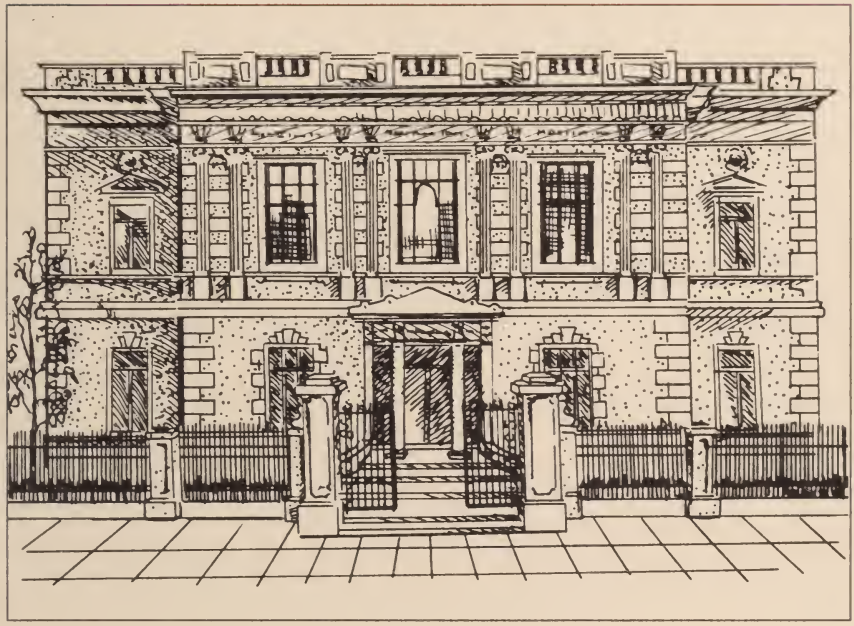
TRANSACTIONS & STUDIES



of the

COLLEGE OF PHYSICIANS OF PHILADELPHIA

Series V Volume XXII December 2000

COLLEGE OF PHYSICIANS OF PHILADELPHIA
Officers and Trustees
Standing and Special Committees 1999–2000

OFFICERS

Charles T. Lee, Jr., M.D., *President*
Allen R. Myers, M.D., *President-Elect*
Edward J. Resnick, M.D., *Secretary*
George Ross Fisher, III, M.D., *Treasurer*
Marc S. Micozzi, M.D., Ph.D., *Executive Director*

BOARD OF TRUSTEES

Lewis W. Bluemle, Jr., M.D.
Michael J. Bradley
Robert H. Bradley, Jr., M.D.
Luther W. Brady, Jr., M.D.
Robert E. Campbell, M.D.
David Y. Cooper, M.D.
Edward S. Cooper, M.D.
Lewis L. Coriell, M.D., Ph.D.
Alfred P. Fishman, M.D.
Stanley Goldfarb, M.D.
Joseph S. Gonnella, M.D.
William L. Kissick, M.D., Dr. P.H.
Dorothy I. Lansing, M.D.
David Levien, M.D.
Bennett Lorber, M.D.
Robert D. Reinecke, M.D.
Jonathan E. Rhoads, M.D.
Brooke Roberts, M.D.
George P. Rosemond, M.D.
Peter Utsinger, M.D.
Thomas M. Vernon, Jr., M.D.

WOMEN'S COMMITTEE REPRESENTATIVE

Mrs. William J. (Betty) Erdman

* * *

Watson Publishing International

* * *

Transactions & Studies of the College of Physicians of Philadelphia (ISSN 0010–1087) is published annually by the College of Physicians of Philadelphia, 19 South 22nd St., Philadelphia, PA 19103. Subscription correspondence should be sent to the journal at the same address. As of September 1997 subscriptions within the U.S.A. and Canada are $20.00, International $25.00. Back issues, $15.00 each. Cancellations, reports of missed issues, and refunds must be in writing and on an official letterhead.

Scholarly submissions should be sent to Editor, Transactions and Studies, College of Physicians of Philadelphia, 19 South 22nd St., Philadelphia, PA 19103, Attention: Josepha Sereda, Library Administrative Assistant.

Transactions & Studies of the College of Physicians of Philadelphia is indexed in *Biological Abstracts*, *Chemical Abstracts*, and *Index Medicus*.

TRANSACTIONS & STUDIES

of the
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

Series V Volume XXII December 2000

Copyright © 2000 by the College of Physicians of Philadelphia

TRANSACTIONS & STUDIES OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Series V Volume XXII December 2000

Editorial v
DEBORAH JULIE FRANKLIN

Transactions

Report of the President of the College of Physicans of Philadelphia 1
CHARLES T. LEE

Report of the Executive Director 5
MARC S. MICOZZI

Annual Reports of the Thematic Sections
Section on Medical History 11
A. DEBORAH GOLDSTEIN
Section on Public Health and Preventive Medicine 15
RICHARD J. COHEN
Section on Arts-Medicine 17
PERRY OTTENBERG
Section on Medical Ethics 19
THOMAS W. LANGFITT

Annual Report on Public Relations Activities 21
RICHARD LEVINSON

Annual Report of the Shaw Division of Library and Public Services 25
ANDREA L. KENYON

Annual Report of the Library 31
MARJORIE SMINK

Annual Report of the Wood Institute for the History of Medicine 37
MARJORIE SMINK

Financial Report of the College of Physicians of Philadelphia FY 1999 39
SUZANNE SICKINGER

Research Reports
Visiting Scholars of the Wood Institute 41

Studies

Pictures of Episcopal Hospital, Philadelphia, PA: Part I (1851–1926) 75
Adam W. Ellis, David Levien, and Marita Krivda

Victor Satinsky (1912–1997) and the Success of His Partially Occluding Vascular Clamp 87
Marc D. Eisen and Kenneth L. Brayman

Historical Aspects of Contemporary Complementary Medicine 105
Marc S. Micozzi

Lithotripsy in America: Transfer of the Technique from Europe, 1824–1840 117
James M. Edmonson

From the Fellowship

Two Book Reviews 125
George Ross Fisher, III

Memoir: W. Robert Penman, M.D., 1920–2000 128
Luigi Mastroianni

From the Archives

The Samuel X Radbill Collections 132
Charles Greifenstein

Notes on Contributors 135

Staff 137

Editorial

For nearly two decades, *Transactions and Studies of the College of Physicians* has apportioned the majority of its pages to studies exploring the history of medicine. In part because the College's Historical Library consistently attracts major scholars, it has been possible to publish the work of a number of well-known figures in the field, including Charles Rosenberg, Ph.D., Rosemary Stevens, Ph.D., Jaclyn Duffin, M.D., Ph.D., and Gert Brieger, M.D., Ph.D. Some have worried that this opportunity has restricted access to the journal to formally trained historians. This would be a loss. A heterogeneity of perspectives should enliven an issue as long as standards of scholarly integrity and eloquent prose are upheld.

Physician-historians have been in practice for centuries and are likely to continue producing papers, books, and lectures into the twenty-first century. They will continue to be joined by nurse-historians, pharmacist-historians, administrator-historians, patient-historians, and family-of-patient-historians. What imperils these efforts is not the personal passion, experience, or bias that such authors bring, but the isolation in which they may work. Failure to build on existing scholarship is the most frequent reason I have had for rejecting manuscripts submitted to *T&S*. These barriers can be overcome with thorough literature searches and deft use of one of our culture's greatest resources: the reference librarian.

Volume XXII/2000 of *Transactions and Studies* is a tribute to those who take the time to thoroughly investigate a historical question even though this is not their full-time occupation. Almost all the authors listed in the table of contents of this issue of *T&S* hold advanced degrees in more than one field, but only one has made the history of medicine the basis of a full-time career. It is my hope that readers will look honestly at the articles, comparing them to one another and to those in previous issues, with the goal of understanding more about the relative strengths and weaknesses of differing perspectives on the history of medicine. We must ask if a graduate student in a History of Medicine program would have seized the opportunity to meet Victor Satinsky if he or she had not known that

this Philadelphia surgeon's name is standard terminology in American O.R.'s. We must ask what it means to record the history of the hospital you work at or train at versus one you approach only as an observer. And we should ask whether history and anthropology can really shed light on contemporary American interest in complementary or alternative medicine.

Although the array of methodologies reflected in *T&S* XXII/2000 may elicit various opinions, I have no doubt that the readership will join me in acknowledging the high standards of evidence, argumentation, and eloquence that the selected authors uniformly exhibit.

DEBORAH JULIE FRANKLIN, PH.D., M.D.

Report of the President

This past year has been one of continued progress for the College as we have built upon the strengths of the recent past. My report will only outline some of the important events of the year from the viewpoint of the governance of the College. The details of the College's activities are described in the attached reports.

New Fellows were elected in greater numbers than previously, with seventy-six additional names added to the historic register this year. Chaired by Warren Katz, M.D. the Committee on Admissions encouraged the submission of new proposals and carefully evaluated the candidates. The successful ambassadors program involving local hospital staffs will be expanded to include professional groups that meet regularly at the College. Some of the credit for the record numbers may be attributed to increasing awareness among the public and our profession of the College and its activities.

The change to a Board of Trustees from the previously designated Council and the election of two non-physician trustees was approved without incident. Alfred Fishman, M.D. and the Committee on Nominations did a splendid job of identifying and recruiting future leaders for the College.

Guided by William Kissick, M.D., the Program Committee concluded a magnificent series of lectures on emerging diseases supplemented by lectures sponsored by each of the College's Sections (Arts-Medicine, Medical History, Public Health, and Medical Ethics). The large number of programs taxed our staff's ability to make the necessary arrangements. A decision had to be made to limit the programs to a more manageable number in the future.

The College had a very successful year with respect to development initiatives. A major highlight was a federal appropriation of nearly one million dollars for repairs and improvement to our building. The Board allocated most of these funds toward replacing the aging and inadequate environmental system that protects the stacks and rare books section of the library—an overdue upgrade. Additional moneys have been obtained for needed repair and renovation of exterior doors and windows, improvements to the parking lot,

and a continuing effort to improve Mitchell Hall with new lighting. The Women's Committee has pursued these projects on an ongoing basis—beginning with new draperies for the repaired leaded glass windows in Mitchell Hall. We owe our recent success to the combined efforts of George Ross Fisher, III, M.D. and the Development Committee, Marc Micozzi, M.D., Ph.D., and Edward Plocha. Dr. Micozzi was responsible for the government grants and, as Director of Development, Edward Plocha coordinated many other smaller grants and our annual giving activities.

The Library and the Mütter Museum will both be enhanced by the installation of new computerized cataloging and collections management systems in the coming year, supported by generous grants from the Barra Foundation and the Groff Family Trusts. When completed, these improvements will increase the accessibility of our historical collections by making certain records available on-line. Robert D. Reinecke, M.D. and the Library Committee have been systematically reviewing our holdings and deciding where further savings can be made by cutting down on accessions.

The search for a Director of the Wood Institute continued during the year and a well-qualified applicant came down to the wire before deciding to withdraw. The search continues and we have other excellent prospects to consider. It is our intention to have a Director in place by this time next year.

Both the new Gallery, with its current exhibit on infectious diseases, and the Mütter Museum have drawn a tenfold increase in the number of visitors over the past decade. The expansion of visiting hours to seven days a week in early 2000 continued this trend and has more than paid for itself with the increase in income.

Finances are the bedrock on which our future depends and it is a tribute both to Allen R. Myers, M.D., the Finance Committee he chairs, and the administration that, despite increases in our activities, costs have been held down and revenue enhanced so that this year's budget is balanced. We hope that next year may even show a positive number on the bottom line. We depend, of course, on the continued support and generosity of our Board, the Fellowship, and the charitable institutions that allow us to continuously improve our wonderful institution.

It would not be possible to name individually all those who have been instrumental in the renaissance that the College is currently undergoing. I am deeply indebted to the Fellows and members of the administration whose kindness, hard work, and support have

brought us to where we are today. These past two years have been a wonderful personal experience for me and I thank all of you for giving me the privilege of joining you in working for the future of the College.

Charles T. Lee, M.D.
President

Report of the Executive Director

Budget and Financial Management

During this period, the Executive Office worked closely with the Office of Finance and Accounting and senior staff to build an accurate operating budget from the "ground up." This process relied upon cost center accounting, and conservative and realistic estimates of College costs and revenues. When an initial draft budget included a modest projected operating deficit, management worked closely with the College President, Treasurer, and the Chair of the Finance Committee to craft a list of prudent, carefully targeted budget cuts that avoided reductions in staffing or in the scope of services that the College provides. By the end of the College's fiscal year on June 30, 2000, the institution's financial health was both sound and continuing to improve. The College stayed within its operating budget for the year and experienced a balanced result on a cash basis. We completed an operating budget for 2001 with a projected surplus of approximately $100,000. This operating surplus is important in part due to the variable flow of College receipts during the year, and will allow the College to more effectively manage cash flow and better address payables in a more timely fashion. This provision in turn will make possible the eventual funding of non-cash depreciation expense leading to either a deferred maintenance capital account or the return of funds to the growing College endowment. This budget has been achieved by keeping staffing levels constant, counting only grant funds that have already been awarded and committed to the College for FY 2001, and by excluding from revenue estimated grant funds that have been applied for, but have yet to be awarded. The College has garnered approximately $2.5 million in government grants, contracts, and appropriations during previous legislative cycles.

Building Renovations

The long-needed renovation of the leaded glass windows in Mitchell Hall was accomplished with the support of the McClean Contributionship and matching contributions from College Fellows. A separate project to clean the College's air duct system (for the first time since 1908) was completed with the support of the Arcadia Foundation. In a real sense these important projects set the stage for a major building restoration project to be funded by a $906,000 federal appropriation and $45,000 in state moneys. The priority list for this effort includes replacement of the mechanical systems for HVAC in the library collections (stack) facility, repair and renovation of exterior doors and windows, cleaning of the exterior façade, upgrade of the College's electrical systems, and capital improvements in the parking lot. The Development Committee plans to establish a $250,000 capital building fund to be supported by the Fellowship. This will not only help the College to match government funds, but extend the scope of building restoration projects.

Library

The College Library continues its evolution toward becoming a definitive historical medical library. This transition is saving costs and conserving revenues. The successful purchase of a new library cataloguing system will allow us to maintain our own state-of-the-art, on-line catalogue. Funds for this purchase were included in the capital budget and will result in significant short-term and long-term savings for the College in contract service charges from HSLC. Since the College has been awarded $75,000 from the Barra Foundation in support of this project, it frees currently budgeted capital funds for other purposes. The College has also applied for a second grant from the Institute of Museum and Library Services to continue and expand the scope of the present library conservation project. Building on the foundation provided by the first IMLS grant and the library stacks renovation project, the College will seek grant support from the William Penn Foundation in FY 2001. The Library has also embarked on a permanent historical exhibit program with the installation of two new display cases in the upstairs foyer funded by the Helen Groome Beatty Trust. College staff is formulating a plan for the creation of permanent historic library displays in the Norris Room. While the new library exhibits are being developed, the Col-

lege's gallery exhibit on emerging infectious diseases is being extended to meet popular demand.

College Gallery and Mütter Museum

The Mütter Museum and College Gallery adopted Sunday hours for the first time on March 26, 2000. By the end of May, Sunday admissions (noon to 4:00 P.M.) were drawing close to the number of guests who visit on Saturday (10:00 A.M. to 4:00 P.M.). Gift shop sales have increased 30% and a significant increase in merchandise for the shop has been budgeted. The College has also substantially reduced the levels of various deep discounts on admissions and enhanced security with new equipment purchased with the support of the Groff Trusts. Strong public attendance generated record receipts during Spring 2000. During this period, the College, with the rest of the City, was actively involved in preparing for the arrival of the Republican National Convention in Philadelphia (July 31–August 3). College activities included preparing a special version of our exhibit on presidential health for inclusion in a major exhibition on politics and the presidency featured at the Pennsylvania Convention Center, called "PoliticalFest." At the same time, the College enhanced the original version of the exhibit in the Mütter Room with important additional artifacts. College Fellow and Lincoln collector, Dr. John Lattimer of New York graciously agreed to allow the College to display the blood-stained collar President Lincoln wore the night of his assassination at Ford's Theater. Museum Director Gretchen Worden also added historically significant medical artifacts associated with the death of John Wilkes Booth and with Charles Gaiteau, the assassin of President James Garfield. Once the Convention arrived, the College served as host venue for receptions for state delegations from Arkansas, Oklahoma, and Washington. The National Review hosted its 50th Anniversary Gala Reception in honor of the Chairman of the House Judiciary Committee, Henry Hyde. Among those in attendance were William F. Buckley, Jr. and many members of Congress.

Wood Institute

The second and final installment of $400,000 in grant funds from the Measey Foundation was received ahead of schedule. At this writing, there are two active candidates for the dual position of the Measey

Chair in Medical History and Director of the Wood Institute. The final meeting of the search committee occurred on July 18, 2000. A new Director will take up the post no later than July 1, 2001. Once the successful candidate has committed to the post, the College will provide an immediate status report to the Measey Foundation concerning the future direction of historical activities at the College and the potential for additional support from Measey, and will also submit revised grant proposals to the William Penn Foundation and to the National Library of Medicine for medical history library and program support.

Koop CHIC

As recommended by the evaluation conducted by the U.S. Centers for Disease Control and Prevention and the College's Library Advisory Committee, the Executive Director and College President Charles T. Lee met with the Chairman and the President of the Free Library of Philadelphia to develop a partnership that would involve the expansion and co-location of the Koop CHIC. Andrea Kenyon, Director of Public Services, conducted a focus group with key leaders of the Free Library to discuss approaches to this goal. CDC has accelerated current support for the CHIC through the approved contractor, Macro Associates, so that a follow-up grant for 2001–2003 is buttressed by early completion of work due in 2000. CDC issued a sole source RFA for the CHIC with a three-year work plan in May 2000. The College requested and completed the sole source grant application in June.

Non-Profit Finance Fund Workshop

In April 2000, President-elect Thomas Langfitt, M.D. and the Executive Director attended a two-day workshop at the suggestion of officials at the Pew Charitable Trusts. Dr. Micozzi briefed members of the College Board, providing both oral reports and detailed memoranda. The key presenters for this workshop included Thomas Harris, who was with J.P. Morgan in New York and London for 20 years. He also has 13 years of experience in non-profit planning and finance. One of his fellow presenters, Lee Daney, CFRE did a major presentation at the College in 1996. His other colleague, Thomas

Burk, R.A. was closely involved with the successful building expansion project for the National Board of Medical Examiners. There was a second workshop component on fundraising in May 2000 that was attended with College President Charles T. Lee. Information gathered from these workshops is helping to lay a foundation for an important component of strategic planning to achieve the College's goals for capital fundraising and building restoration.

Conclusion

Management and governance have successfully surmounted several of the difficult challenges the College has faced in recent years. Our financial house is in order and we now enjoy a solid financial foundation as the College faces the future. Our Library has embraced a more tightly focused mission that will allow us to concentrate on our unique world-class strengths as a historical medical library. The Wood Institute will soon enjoy leadership of the first caliber and closer ties with local medical schools than it has ever had in the past. We have built a new development program that has achieved numerous successes and provides bright prospects for the future. Finally, we have a realistic master plan for the renovation of the College building that will rely on a mix of private funds and moneys already appropriated by federal and state governments. In short, the future of the College is bright and promising at the beginning of the new millennium.

Marc S. Micozzi, M.D., Ph.D.
Executive Director

Report of the Section on Medical History

The Section on Medical History, founded in 1905, also functions as the Philadelphia chapter of the American Association of the History of Medicine. During the past year we offered a series of five lectures in addition to co-sponsoring the Mütter Lecture and participating in an exciting program of medical history at the annual meeting of the American College of Physicians–American Society of Internal Medicine (ACP-ASIM) held in Philadelphia in April 2000.

The first Section lecture in October 1999 was given by Charles Rosenberg, Ph.D., Professor of the History and Sociology of Science at the University of Pennsylvania. He spoke on "The Tyranny of Diagnosis." In November, Norman Gevitz, Ph.D. spoke on "The Osteopathic War to Enter the Military Medical Corps, 1916–1966." This lecture coincided with the centennial celebration of the Philadelphia College of Osteopathic Medicine (PCOM). PCOM graciously hosted a festive reception following Dr. Gevitz's talk.

In February, Jeffery Baker, M.D., Ph.D., visited from Duke University to present the annual lecture held in honor of Samuel X Radbill, M.D., a noted Philadelphia pediatrician and historian of medicine. Dr. Baker spoke about "The Incubator and the 'Discovery' of the Premature Infant" to an enthusiastic audience that include one of Dr. Radbill's daughters.

In March 2000, Steven Peitzman, M.D., Professor of Medicine and Archives Historian at MCP-Hahnemann School of Medicine, presented the Kate Hurd Mead Lecture for "Doors of Opportunity at the Woman's Medical College and MCP," held in conjunction with the sesquicentennial celebration of the founding of the Medical College of Pennsylvania. Over one hundred people attended both the lecture and the dinner that followed.

In April, Robert M. Kaiser, then Chairman of the Section on Medical History, organized and chaired two sessions at the ACP-ASIM meetings. The first session, held at the Philadelphia Convention Center, focused on the medical history of Philadelphia. An introduction by Dr. Kaiser was followed by "The Career of Philip

Syng Physick," by Howard Snyder, M.D. of the Children's Hospital of Philadelphia; "Paths to the Present: the History of Pennsylvania Hospital (1751–2000)," by Deborah Franklin, Ph.D., M.D. of the University of Pennsylvania; "Nursing in Early Nineteenth Century Philadelphia," by Patricia D'Antonio, R.N., Ph.D., also of the University of Pennsylvania; "Philadelphia's First Female Professor of Medicine and Her World: Discovering Dr. Frances Van Gaskin," by Steven Peitzman, M.D., and "Osler in Philadelphia: Why was the Clinical Clerkship Put Off?" given by Thomas Huddle, M.D., Ch. D., Associate Professor of Medicine at the University of Alabama.

The second session, held at the College of Physicians, featured talks by Rosemary Stevens, Ph.D., of the University of Pennsylvania, on "American Medicine and the Fate of Medical Specialism"; "The Origins and Development of the Modern Hospital," by Charles Rosenberg, Ph.D.; "History-taking and Physical Diagnosis in Contemporary Medicine," by Steven Peitzman, M.D.; "The Right Number of Doctors: Understanding the Medical Manpower Crisis in Twentieth Century America," by Russel Maulitz, M.D., Ph.D.;"The Role of Machines in Medical Practice," by Deborah J. Franklin, Ph.D., M.D.; and concluding with "Perspectives in Twentieth-Century Therapeutics," by Robert Kaiser, M.D. Both sessions were well-attended by the ACP-ASIM, and all of the speakers, save one, were members of the College's Section on Medical History. Audio tapes of both sessions are available through the publication office of the AIM/SIM.

April 2000 also found the Section privileged to co-sponsor the annual Mütter Lecture given on this occasion by Brian Owen-Smith, M.B. on "Benjamin Franklin and the Hewson Anatomy School." The sizeable audience included not only Fellows of the College but also a delegation from London involved in the preservation and restoration of the Benjamin Franklin House. The evening's events were organized by Gretchen Worden, Director of the Mütter Museum. Further details can be found in the Annual Report of the Mütter Museum.

Our lecture offerings concluded with an engaging and informative presentation in May by John Mather, M.D. on "Some Medical Myths Concerning Winston Churchill." Dr. Mather, a governor of the Churchill Society, is writing a medical biography of Sir Winston and generously provided an extensive printed companion to his talk detailing the medical history of his surprisingly athletic and otherwise accomplished subject. Many in the audience had not realized that

Churchill played polo until he was fifty-five and that he swam daily through his eighties.

At our final meeting this year, the Section said farewell to Robert Kaiser, M.D. who had accepted a Fellowship in Gerontology at Duke University and we welcomed a new Clerk, Mark Sageman, M.D., Ph.D., a forensic psychiatrist in private practice in Philadelphia and a Lecturer at the University of Pennsylvania.

A. Deborah Goldstein, M.D.
Chair, Section on Medical History

Report of the Section on Public Health and Preventive Medicine

The Section on Public Health and Preventive Medicine of the College of Physicians had an eventful period beginning in July 1999. The Section and the College's Committee on Public Health and Preventive Medicine initiated a by-laws change merging the Committee and the Section. This was overwhelmingly approved and the now-combined Section on Public Health and Preventive Medicine had an active and successful year.

In order to share our ideas with the Fellows of the College, the Section and members of the regional public health community co-sponsored a number of sessions throughout the year. These began with the September 14 session on "Youth Violence," presented by John Templeton, M.D. On October 19 the Section co-sponsored a session presented by James Poupard, M.D., entitled "Biological Warfare and Bioterrorist Agents as Sources for Emerging Pathogens." On November 3 we held a session on "Corporal Punishment by Parents: A Risk Factor for Life-Long Health Problems," delivered by Professor Murray Strauss, Co-Director of the Family Research Laboratory at the University of New Hampshire. On February 29 the Section sponsored a session entitled, "White Coat, Green World: Environmental Medicine and Primary Care," presented by Howard Frumkin, M.D. from the Rollins School of Public Health. The Section co-sponsored a session with the College on April 4 during which James Hughes, M.D., Director of the National Center for Infectious Disease, CDC spoke on "Emerging Infectious Disease: Addressing the Challenges."

The annual highlight of the Section was its public health poster session. This year it was held on April 5 in conjunction with National Public Health Week. At the well-attended poster session, Estelle Richman, Director of Social Services for the City of Philadelphia, was recognized for her outstanding public health work in our community. The Section's year concluded with a presentation on June 5 entitled, "Rebuilding the Public Health Infrastructure for

Environmental Health: An Overview of the Pew Environmental Health Commission."

In addition to these outstanding presentations, the Section's Executive Committee met regularly to discuss public health issues and policies and will be increasingly active in this area in the year ahead. The membership of the Section approaches 200 individuals and our involvement in public health issues in our community continues to grow. The Section on Public Health and Preventive Medicine looks forward to another active and exciting year for 2000–2001.

RICHARD J. COHEN, PH.D.
CHAIR, SECTION ON PUBLIC HEALTH AND PREVENTIVE MEDICINE

Report of the Section on Arts-Medicine

The Section on Arts-Medicine of the College of Physicians of Philadelphia presented three programs between July 1999 and July 2000. In November, the section co-sponsored the College's Sonia Stupniker Isard lecture, "Students Against Right Brain Atrophy: Inclusion of the Arts at Tulane University School of Medicine," by Paul Rodenhauser, M.D. Dr. Rodenhauser is Professor of Psychiatry, Director of Medical Student Education in Psychiatry, and Assistant Dean for Academic and Counseling Services at Tulane University. He described the program he established for medical students to encourage the pursuit of creative arts while studying medicine. He believes that the arts not only enhance creativity and clinical skills but also improve the humanism of medical students as future physicians.

A tour of Woodmere Art Museum's Arthur B. Carles Exhibit was arranged for the Section in April by Perry Ottenberg, M.D. Arthur Carles (1882–1952) was a native of Philadelphia and a 1907 graduate of the Pennsylvania Academy of Fine Arts. As an artist he matured in Paris, reveling in the Fauvist's explosion of color. He also assimilated the progressive spatial quality of Cezanne and the cubist insights of Picasso. He returned to the United States and enjoyed a bohemian life-style in Germantown, participating in the "roaring 20s" in the company of Philadelphia's literati, but succumbed to alcoholism and the erosion of his reputation during the Depression. Dr. Ottenberg, whose collection of Carles' work was featured at the exhibit, led a small group through the show, explaining the artist's complex career and linking his personality, emotional problems, and paintings. The tour was followed by a previously scheduled academic seminar lead by Sylvia Yount of the Pennsylvania Academy of Fine Arts and including Quita Brodhead, a pupil of Carles, Bill Scott, Jan Carles Baltzoll, and Perry Ottenberg, M.D.

In May 2000 a panel discussion, "The Image of the Physician," was presented by members of the section's Executive Committee. This program included a slide presentation by Burton Wasserman, Ph.D., of artistic works by Rembrandt, Goya, and Van Gogh; poetry selections read by Mary Anne Bartley; musical selections by Paul

Nolan, M.C.A.T.; and photographs by Perry Ottenberg, M.D. The latter contrasted the hugeness and complexity of medical institutions and technological treatment with the helplessness of individual patients. The idea that contemporary medical science and health care delivery encourage the bureaucratization of illness was discussed. Others proposed that some dehumanization of the individual is adaptive in the pursuit of excellent care. Negative results apparently occur when science overrides other aspects of medical care, altering the fragile balance between patient and care giver.

All members of the College are invited to join the Section on Arts-Medicine and attend its presentations in order to broaden the current membership base of artists and health science professionals.

PERRY OTTENBERG, M.D.
CHAIR, SECTION ON ARTS-MEDICINE

Report of the Section on Medical Ethics

The Section on Medical Ethics chose two timely and challenging topics for its full agenda last year. One of them examined the ethical dimensions of managed care and focused on the role of physicians in protecting both access and delivery of appropriate medical care for the American public in a managed care environment. Donald A. Young, Chief Operating Officer and Medical Director, Health Insurance Association of America, addressed the Fellowship in December 1999 on this topic. Among many salient comments on the subject, he stated that

> The medical profession, when adhering to traditional ethical principles of patient advocacy and beneficence may fail to consider equally important responsibilities related to stewardship and distributive justice.

Physicians' responsibilities are not limited to the proper management of their individual patients but extend to promoting access to appropriate care for the larger population. Denial of access is unjust and it is within the purview of physicians, indeed it is one of their responsibilities, to confront this injustice as vigorously as they struggle for the needs and rights of their individual patients.

In May 2000, Edmund Pellegrino, Ph.D. addressed a second substantive topic for the Fellowship with a talk entitled, "When the Patient is 'Overmastered by the Disease'—A Moral Algorithm for the Cessation of Treatment." Dr. Pellegrino is currently Director of the Center for Clinical Bioethics and the John Carroll Professor of Medicine and Medical Ethics at Georgetown University. He is one of the founders of bioethics as both an intellectual and a clinical discipline. He focused his remarks on four questions that arise when a physician confronts the cessation of treatment of a patient:

> Who decides?
> By what criteria?
> How is conflict prevented?
> When there is conflict, how is it resolved?

Pellegrino examined each of these questions as part of what he identified as a "moral algorithm," albeit one in which the futility of treatment for the terminally ill plays a central role.

The Section was very pleased with these contributions to the work of the College and with the responses of the Fellows in attendance.

THOMAS W. LANGFITT, M.D.
CHAIR, SECTION ON MEDICAL ETHICS

Report on Public Relations Activities

Public relations activities during this reporting period included a mix of special projects, as well as ongoing promotion of College programs and services. Highlights of the past fiscal year appear below:

A. *AP* Series on Pennsylvania Medicine

In August 1999, George Strawley, a reporter with the *Associated Press*, contacted this Office seeking help in organizing a seven-part series for the Millennium focusing on Pennsylvania's contributions to twentieth-century medicine. Interviews with College Fellows Dr. F. William Sunderman, Dr. William Kissick, Dr. Baruch Blumberg, and Executive Director Dr. Marc Micozzi were conducted as part of the research process. The College Library also provided material for this project. Ninety Pennsylvania newspapers were scheduled to run all or part of the series. Of equal note, *The Rotarian*, the magazine of Rotary International, included the Mütter Museum in an article on the world's most unusual museums. The magazine has 500,000 subscribers.

B. *Inquirer* Feature on the College

On January 10, 2000, the "Health & Science" section of the *Philadelphia Inquirer* published a feature on the College entitled "College of Physicians sees past as its future." In a very positive profile, reporter Marian Uhlman discussed the College's successes in pursuing federal grants, helping to place the subject of presidential health on the nation's policy agenda, taming past budget deficits, and the evolution of the College's library. College Fellows Dr. Allen R. Myers, Dr. Alfred P. Fishman, Dr. Robert Reinecke, and Executive Director Dr. Marc Micozzi were quoted in the article. Ms. Uhlman's piece included two color and two black and white pictures of the College.

C. "Medical Errors and the Public's Health Interest"

At the suggestion of the College's President-Elect, Dr. Allen R. Myers, the College presented a public program on medical errors and the profession's efforts to reduce them. The featured speaker for this February program was *Inquirer* reporter Andrea Gerlin, who researched and wrote a four-part series on medical mistakes. To provide multiple perspectives on this important issue, three speakers were invited to comment on Ms. Gerlin's presentation. The commentators included Dr. William Mahood, a College Fellow who is a Trustee of the American Medical Association; Mr. James G. Sheehan, a U.S. Attorney representing the Department of Justice; and College Fellow Mr. H. L. Perry Pepper, who spoke on behalf of the American Hospital Association. Among the media who covered or reported on this program were *American Medical News*, which has a circulation of 350,000; *Physician's News Digest; KYW Radio;* and the local *NPR* affiliate, *91 FM. KYW Radio* reaches an estimated one million homes in the Delaware Valley each week.

D. Presidential Health

This Office prepared and coordinated several meetings of a special College task force on Presidential Health. The group, which was chaired by Dr. William L. Kissick, met to begin the process of hammering out an official College advocacy position on the subject of presidential disability and the 25th Amendment. Dr. Kissick's student, Aaron Kesselheim, prepared both a white paper and several drafts of a plan responding to the need for an independent panel of medical experts to review and monitor the President's health status. The College has communicated its concerns to Pennsylvania's senior U.S. Senator, Arlen Specter; to the Chairman of the Judiciary Committee of the U.S. House of Representatives, Henry Hyde; and to the Chairman of the Judiciary Committee of the U.S. Senate, Orrin Hatch. As this report is being written, Chairman Hyde has expressed an interest in the possibility of holding a hearing on this issue after the 2000 election. We also anticipate that the Committee's legal counsel will visit the College prior to this time.

E. *American Medical News* Profile of the College

On June 12, 2000, *American Medical News* published a profile of the College in the magazine's "Professional Issues" section. This portion of the publication features stories focusing on organized medicine, medical ethics, medical education, and quality standards in medicine. During the process of gathering information for this story, reporter Bonnie Booth interviewed College Fellows Dr. George Ross Fisher, Dr. Robert Reinecke, Dr. Alfred P. Fishman, Dr. Allen R. Myers, and Executive Director Dr. Marc Micozzi. Ms. Booth's highly complimentary article included a discussion of the College's rich history, its traditional role as a strong advocate for programs designed to improve public health, the unique nature of the College's library/museum collections, and the College's repeated successes in the tough competition for federal grants. This profile included four color and one black and white picture of the College.

F. Republican National Convention

In the months leading up to the 2000 Republican National Convention, this Office was involved in multiple projects reflecting the full scope of the College's convention-related activities. These activities included helping to prepare a grant proposal to Pfizer Pharmaceuticals in support of the College's plan to have a special version of the exhibition "When the President is the Patient" included at PoliticalFest, a celebration of politics and the presidency held at the Pennsylvania Convention Center in association with the Republican National Convention. At the invitation of the Philadelphia Convention and Visitors Bureau, this Office contributed two articles for the Official Delegate and Media Guide prepared for the Republican National Convention. Copies of the Guide were mailed to every delegate, alternate, and media organization participating in the convention. Other projects involved serving on a committee to help determine the intellectual content of PoliticalFest, coordinating the attendance of College donors at Convention-related receptions, and helping to devise and execute a marketing program to promote the College during the Convention.

Richard Levinson

Report of the Shaw Division of Library and Public Services

The Katherine A. Shaw Division of Library and Public Services includes the Library, C. Everett Koop Community Health Information Center, College Gallery, Mütter Museum, Reception Desk and Gift Store, Information Systems, and Special Events (Facilities Rental).

The C. Everett Koop Community Health Information Center (CHIC)

The CHIC maintains a current collection of quality health information materials including books, journals, newsletters, videos, computer databases, CD-ROM products, Internet access, and pamphlets for adults, youth, and children in both English and Spanish. Additional professional reference texts were relocated to the CHIC as a result of the decision to utilize the second floor reading room strictly for historical research. Funding from the Scholler Foundation in the amount of $5,000 provided funds to purchase two computer workstations and a new computer table for use by visitors and school groups visiting the CHIC. Each computer provides access to the College online public access catalog, consumer-oriented health information CD-ROMs such as Health Reference Center, as well as access to the Internet. Bookmarks lead Internet health information seekers to qualitative health information Websites.

The CHIC received an eleven month (November 2, 1999–September 2, 2000) grant from the Centers for Disease Control and Prevention to implement the recommendations of the CDC evaluation of the CHIC as a physician-based model for the dissemination of health information. The evaluation assessed: (1) effectiveness of the CHIC products and services from the user's perspective; (2) the use of CHIC products and services and barriers to their use; (3) the effectiveness of collaborative arrangements with nonprofit organizations, corporations, libraries, government agencies, and voluntary

health agencies; (4) the effectiveness of the products and services such as quality of resources (currency, accuracy, readability, organization, and cultural diversity). The evaluation recommended that the CHIC improve its marketing efforts, enhance its Website and reinstitute weekend hours. The grant work plan provided funding for expanded hours of service, enhancements to the CHIC Website, and targeted marketing efforts to local libraries and College Fellows.

Steps to expand CHIC hours of services began with the hiring of Eric Darley as the Consumer Health and Medical Reference Librarian in December 1999. The CHIC expanded its hours from Wednesday through Friday 10 A.M. to 4 P.M. to Tuesday through Saturday 10 A.M. to 4 P.M. The number of visitors to the CHIC was approximately 2,000, which reflects very low visitation numbers during the first half of the year when the CHIC had restricted hours. Since the expansion of hours in December, the monthly visitation has shown a sharp and steady increase. In addition to helping onsite visitors, CHIC staff performed reference services for a fee, including online computer literature searches and in-depth reference questions. There are currently 80 CHIC subscribers who pay an annual membership fee of $20 to borrow materials from the CHIC collection.

Promotion

A new CHIC sign was designed for the College foyer to encourage museum visitors to stop and explore the CHIC. A new CHIC brochure is currently being designed and has a publication date of July 2000. These will be distributed to Free Library of Philadelphia Branch Libraries as well as to other libraries, doctors' offices, and health agencies in the city.

The College met with the President and Director of the Free Library to initiate discussions about collaborating to provide consumer health information to the public. A focus group was conducted with Free Library staff persons to discuss the consumer health information needs of FLP librarians, and to consider ways in which the CHIC and FLP could work together to better meet the consumer health information needs of Greater Philadelphia residents. Upon review of the focus group responses, the College of Physicians of Philadelphia and the Free Library of Philadelphia identified the following ways that the College and FLP could work together:

1. Establish a formal triage and referral system for FLP staff to send patrons with more involved health information needs to CHIC for reference assistance, one-on-one Internet and database search assistance, onsite videocassette viewing, book borrowing, take-away pamphlets and in-house use of the CHIC vertical pamphlet file. CHIC and FLP would need to negotiate fair and reasonable expectations regarding response time and telephone service for all FLP-referred patrons.
2. Development of health information workshops and presentation(s) by CHIC staff for both FLP staff and patrons. Topics for these presentations could include an overview of consumer health information sources, searching and evaluating health information resources on the Internet. These workshops could be held at various locations in the city including Branch Libraries as well as the Main Library and the CHIC.
3. Investigate the feasibility of developing a health-related speaker's bureau which would make available discussions by College of Physicians members on current or historical medical issues. These presentations could be conducted via FLP's Café of the Mind series.
4. Create Web-based health information presentations for distance education of Free Library staff and patrons.
5. Examine the services and products available via the former Health Information Services for Pennsylvania Residents program, funded by the Commonwealth of Pennsylvania, to determine if elements of the program could be incorporated into the collaborative project between the CHIC and FLP. The Health Information Services for Pennsylvania Residents program permitted the libraries of the College of Physicians of Philadelphia to assist librarians at Commonwealth-supported institutions in the acquisition, organization, and dissemination of health information to consumers.
6. Encourage resource sharing between the CHIC and FLP, including free interlibrary loans and waiving of the CHIC membership fee ($20/year) for holders of valid Free Library of Philadelphia library cards. Explore other ways to expand access to health information resources, including College participation in Access Pennsylvania and providing access to the CHIC collection holdings through the FLP online catalog.
7. Create, maintain, and continuously improve a CHIC consumer health information Web page of current, authoritative, and

comprehensive World Wide Web URLs pertaining to consumer health and patient education. This links page will emphasize Delaware Valley health resources.

8. Establish an electronic health information alert service, using automated electronic mailing list technology, that regularly sends a "what's new in health information" bulletin to all subscribed FLP staff. Further feasibility testing would be done to determine whether a print or electronic alert service is most appropriate.
9. Assist students in the Philadelphia School District with health-related questions and projects through the "Homework Help" initiative.
10. Establish a core team of CHIC and FLP staff who would work together to plan and implement a program that would address the health information needs of the public and ensure city-wide access to quality health information throughout the city utilizing the Free Library system and the CHIC.

These objectives were incorporated in a grant submitted in June to the Centers for Disease Control for funding CHIC operations for fiscal year 2001.

Other initiatives to promote the CHIC to area libraries included the creation of a one-page CHIC flyer for distribution to libraries and other public information spots and visits to the Philadelphia AIDS Library, Planned Parenthood of SE PA Resource Center and the United Way of Southeastern Pennsylvania's First Call Information & Referral Service. An article about the CHIC was written and published in a number of regional library newsletters including the Philadelphia Regional Chapter of the Medical Library Association's "Chronicle" and "PALINET News," a regional library network organization's newsletter. The CHIC was also featured in the *Center City Weekly*, a free weekly newspaper distributed at numerous locations in downtown Philadelphia.

The College is in the process of surveying the College Members practicing in Philadelphia for their input regarding how the CHIC could best serve them in responding to their patients' health information needs. A survey form and information about the CHIC's resources and services were sent to 500 College members.

The College continued its efforts to integrate the information resources of the CHIC with the educational opportunities of the Museum and Gallery. CHIC staff continues to identify ways to complement the College's Gallery and Museum exhibits. CHIC staff is

working closely with the College's Director of Education to enhance the CHIC collections for schoolchildren in grades K-12. Promotion of the CHIC and its resources is being incorporated into the student and teacher workbooks. Plans are being made to incorporate a visit to the CHIC as part of the field trip experience. CHIC materials have been purchased to complement the College's museum-based health curriculum being developed for implementation with the Philadelphia School District in the fall of 2000. Emphasis is being placed on nutrition, substance abuse, infectious diseases, anatomy, health awareness, and prevention.

Andrea L. Kenyon, A.M.L.S
Director, Shaw Division of Public Services

Report of the Library

Conservation/preservation activities highlighted the second year of the College Library's National Leadership Grant ($175,000) from the Institute of Museum and Library Services (IMLS). Marjorie Smink, Project Director, and Charles Greifenstein, Project Coordinator, carried out the following activities, assisted by Library staff members, Christopher Stanwood and Laura Guelle.

1. The Sturgis Print and Photograph Collection, named after Fellow Samuel Sturgis, M.D. (1891–1983) and composed of approximately 8,000 diverse images of medically related subjects, was exquisitely refurbished by the Conservation Center for Art and Historic Artifacts (CCAHA). Acidic mat backings were removed from the images, which were then re-housed in labeled, acid-free sleeves and stored in archival boxes.
2. Fifteen hundred fragile, damaged, and/or mildly deteriorating sixteenth- to nineteenth-century rare books were identified by College staff and placed in folded acid-free cardboard boxes by the CCAHA. Charles Greifenstein, Curator of Archives & Manuscripts, designed a Microsoft Access database to track date, type of treatment, and condition of these books before they were measured for their protective covers by the CCAHA.
3. Fifty incunabula (books printed before 1501) were chosen for placement in clamshell boxes. (Clamshell boxes are composed of archivally sound material to provide protection from light, dust, and handling.) Information on date, type of treatment, and condition of these books was entered into the Microsoft Access database before the books were measured by the CCAHA.
4. Enhancements to the College's Website and OPAC are being developed. A digital library, the Historical Medical Digital Library (HMDL), was designed. It features digitized portions of books that are important in the history of medicine. These books were selected with two criteria: (a) conserved with IMLS funds and (b) listed in Garrison and Morton's *Medical Bibliography*. Selected pages of these books (title pages, tables of contents,

indexes) are now available for online browsing. Clicking the call number brings up the full record from the College's Online Public Access Catalog and selecting the Garrison and Morton number provides a brief explanation of the significance of the book.

5. About 100 pre-1801 imprints and over 250 nineteenth-century rare books were cataloged.
6. A project to catalog the manuscripts listed in the College's printed manuscript guide in Research Libraries Information Network (RLIN) has begun.

Historical Reference

The Library of the College of Physicians continued to serve its worldwide public with access to its collections through the online catalog on the College's Website and reference service via electronic mail, telephone, telefacsimile, regular mail, and personal visits. The following reference activity was recorded for FY00: 904 visits to the Ashhurst Reading Room were recorded for historical and modern library users. Of the 479 users of the historical collections, 25% were students, 21% were Fellows, 11% were academic-historians, and 10% were non-Fellow physicians. Reference questions were answered for 206 phone calls as well as 275 letters, electronic mail requests, and telefacsimile requests. Of the 4,478 items from the historical collections that were retrieved from the Library stacks, 38% were journals, 33% were books and pamphlets, and 29% were Cage materials. Seventy-nine percent of the library's patrons came from Pennsylvania, while another 9% came from the Mid-Atlantic region. Twelve percent came from the rest of the United States and foreign countries. Library staff provided seventeen rare book displays and tours of the collections during the year. Christopher Stanwood, M.A., Historical Reference Librarian, and Charles Greifenstein, M.A., M.S., Curator of Archives & Manuscripts, provided daily reference desk service.

Technical Services

Acquisitions of books included the following types: 40 reference, 22 historical (secondary material), 56 consumer health, 28 gifts, and 2 professional development. Cataloging and processing of 445 items

(monographs-books, pamphlets, monographic serials, journals, and videos excluding Radbill collection) took place during the year. The number of current journal subscriptions was reduced for calendar year 2000 from 220 to 130, but the College owns retrospective holdings of over 21,000 journal titles. The paper copies of *Cumulated Index Medicus* from 1967 to present were withdrawn from the Library; online access to *Index Medicus* is available through Pub Med on computers in the Reading Room. Joan McKenzie, Coordinator for Technical Services, heads this department and is assisted by Laura Guelle, Cataloger.

Radbill Library and Catalogue

The final 60% of the Samuel X Radbill, M.D. Pediatric Historical Library of The Children's Hospital of Philadelphia was cataloged by Laura Guelle, and item records were entered into the College's online catalog. This part of the collection included at least 500 items (monographs, pamphlets, and journals) that were considered rare and were placed in the College's Cage. Over 4,000 shelflist cards were filed for this collection. The Catalogue of the Samuel X Radbill Pediatric Historical Library of The College of Physicians of Philadelphia, listing each item in the collection, was compiled by Ms. Guelle and published by Sir Speedy Press. Shirley Bonnem, Vice-President of The Children's Hospital of Philadelphia, distributed the catalogues. Background information on Samuel X Radbill and the contents of his library are described in the *From the Archives* section of this journal.

Document Delivery/Interlibrary Loan

The Document Delivery Department expediently filled 9,744 requests for book chapters and journal articles, a reduction of 3,000 filled requests from the previous year. In addition, 435 requests for books, journals, or pamphlets from other libraries were filled through interlibrary loan. The library continues to use the Electronic Fund Transfer System (EFTS) for medical libraries to simplify billing for interlibrary loan/document delivery literature. A newly leased Océ library copier provided clearer copies for the College's clients. Members of this department are Document Delivery Clerks Pat Filemyr, Christine Koehler, and Sharon Lutes.

Manuscripts and Archives/Acquisitions

Two noteworthy collections were acquired this year. Fellow David Y. Cooper, M.D. donated a collection of research notes, graphs, and articles that relate to the discovery of cytochrome P-450 at the University of Pennsylvania in the 1960s. Fellow Arthur Peterson, M.D. donated two letters, one from S. Weir Mitchell, the other from Benjamin Rush.

Exhibitions

"Worldly Goods: The Arts of Early Pennsylvania, 1680–1758," a special exhibition at the Philadelphia Museum of Art from October 12, 1999 through January 2, 2000, included two items from the Library's collections: "Some Account of the Hospital of Pennsylvania; from Its first Rise to the Beginning of the Fifth Month, Called May," 1754, by Benjamin Franklin, including an early engraving of Pennsylvania Hospital, and "An Essay on the West Indian Dry Gripes," written by Dr. Thomas Cadwalader and printed by Benjamin Franklin in 1745.

JAMA Cover

On September 8, 1999 the cover of the *Journal of the American Medical Association* displayed one of the many jewels of the College's Historical Library: the first page of Aulus Cornelius Celsus's *De Medicina*. Written during the first century A.D., our edition of this important text, with its gold and lapis lazuli illuminations, was produced in Florence in 1478. It came to the College on the initiative of College Fellow William Osler, M.D., who encouraged 13 other Fellows to help him purchase the incunabulum for £84 (US $370) in 1912.

Library Advisory Committee

The Library Advisory Committee, chaired by Robert Reinecke, M.D., met in November and April. At the November meeting, Charles Greifenstein, Curator of Archives & Manuscripts, and Gretchen

Worden, Director of the Mütter Museum, presented a display and commentary on important library and museum holdings in neurology. The transfer of 31,000 of the College's uncatalogued foreign dissertations (1900–1963) from Pierce-Leahy Archives to John Zubal, Antiquarian Book Dealer, was announced, a project that the committee advised at its May 1999 meeting. Savings to the College in storage costs will be $2,500 per year. Progress on the IMLS grant program, the status of the Samuel X Radbill Historical Pediatric Collection cataloging project, and plans for producing a printed catalog of the Radbill collection were discussed.

At the April meeting, Charles Greifenstein and Gretchen Worden provided a display of outstanding library and museum holdings in pathology. Long-range plans and changes for the Library and its space were discussed. The current online cataloging system will be phased out and migrated to a new online system purchased from Endeavor Information Systems Incorporated. Over 100 journal subscriptions were cancelled for year 2000, leaving about 130 currently received journals and providing a $20,000 savings. Marc Micozzi, M.D., Ph.D., described future plans for the Ashhurst Reading Room. These plans include the addition of new computers and study carrels, removal of the standing card catalog except for the journal catalog section, transferring the remaining modern library reference texts to the Library stacks or elsewhere, and adding more historical reference material from the Packard-Krumbhaar Alcove of the Norris Room. The Norris Room will be refitted with display cases to showcase rare book exhibits. Staff members' desks will be moved to other rooms. Two new archival flat display cases are now located in the Upper Hall where the library/museum pathology display will be mounted. Plans were discussed for active marketing of College services and resources to Fellows and the public.

PACSCL

The College continues to maintain active participation in the Philadelphia Area Consortium of Special Collections Libraries (PACSCL) activities with both Charles Greifenstein and Marjorie Smink as representatives to the Board of Directors. Mr. Greifenstein also chairs the PACSCL Imaging Committee. The College hosted the first Lunch and Learn session for members of PACSCL library staffs in September.

HSLC

The Board of Directors of the Health Sciences Libraries Consortium (HSLC) is composed of a representative from each founding member library that still maintains membership in the consortium. Marjorie Smink is completing her third year as President of the Board.

Staff

Members of the Library staff attended various workshops, conferences, and organizational meetings, which enhanced their professional networking, knowledge, and expertise. Charles Greifenstein and Marjorie Smink, M.S. attended the Archives and Librarians in the History of the Health Sciences (ALHHS) and the American Association of the History of Medicine (AAHM) conferences in Bethesda, MD. Mr. Greifenstein is the AAHM Archivist. He also attended the Middle Atlantic Regional Archivists Conference (MARAC) and the Delaware Valley Archivists Group (DVAG) meetings.

Marjorie Smink, M.S. and Joan McKenzie attended Philadelphia Regional Chapter of the Medical Library Association meetings and also served as members of the Board of Directors. Christine Koehler received the MLA chapter's Beatrice Davis Education Award, a monetary award given annually to a deserving library school student who is pursuing a career in health science librarianship. Ms. Smink received the Chapter Achievement Award given to a member who has made significant contributions to the chapter and the field of health science librarianship.

PALINET workshops were attended by members of the staff: Digitizing Collections—Charles Greifenstein; OCLC WorldCat—Christine Koehler; Cataloging Videos Basic Workshop—Joan McKenzie. A continuing education course sponsored by the Philadelphia Regional Chapter of MLA, "Resources in the History of Medicine," was attended by Ms. McKenzie and Ms. Smink.

MARJORIE SMINK, M.S.
DIRECTOR OF THE LIBRARY

Report of the Wood Institute for the History of Medicine

The search for a Director of the Francis C. Wood Institute and Chair in Medical History continued through this year. The library and museum staff continued to carry on some functions of the Wood Institute.

Seminar Series

A series of engaging and informative seminars, sponsored by the Wood Institute, was held in the Spring, on Thursday afternoons from 12 noon to 2 P.M. Charles Greifenstein, Curator of Archives & Manuscripts, continued to coordinate the program.

March 16	**Lana Thompson**, B.A. (independent scholar and medical writer), "Down the Tubes: Images of Women in Printed Medical Illustrations of the Hand-Press Era"
March 23	**Scott Martin**, Ph.D. (Bowling Green State University), "Medical Attitudes Toward Gender and Alcohol Use"
March 30	**Ann Wilson** (visual artist), "Hallucinations and Artists: Revealing the Biological Basis of Imagery"
April 13	**George Weisz**, Ph.D. (McGill University), "Rethinking Medical Specialization in Comparative Perspective, 1800–1960"

Resident Research Fellowships

The Francis C. Wood Institute Resident Research Fellowships for 1999 (stipends up to $1,000) were awarded to the following scholars. These researchers spent one to four weeks at the College using the

resources of the library and museum's historical collections. Summaries of the work they accomplished during their tenure appear in the *Studies* section of this issue.

James D. Alsop, Ph.D., McMaster University—*Anglo-American Maritime and Colonial Medicine*

M. Rene Burmeister, M.A., Rutgers, The State University of New Jersey—*For the Profession or the Public? Medical Museums and Artificial Anatomy*

Eric v.d. Luft, Ph.D., M.L.S., SUNY Health Science Center, Syracuse—*The Evolution of Attitudes of American Physicians Toward Their Women Patients in the Nineteenth Century*

Erin McLeary, M.A., University of Pennsylvania—*Organize, Classify, Arrange, and Display: The Medical Museum in American Culture, 1859–1951*

David Serlin, Ph.D., New York University—*History of Organotherapy and Its Relationship to History of Endocrinology*

Ann Starr, M.A., Her Studio-Wellesley, Massachusetts—*The Body's Interior as Visualized Through Medicine and Individual Fantasy*

Lana Thompson, B.A., Medical & Scientific Word Services—*Down the Tubes: Images of Women in Printed Medical Illustrations of the Hand-Press Era*

George Weisz, Ph.D., McGill University—*Rethinking Medical Specialization in Comparative Perspective, 1800–1960*

Ann Hopkins Wilson, Plymouth Meeting, Pennsylvania—*Visual Hallucinations as Portrayed in Artworks*

MARJORIE SMINK
DIRECTOR OF THE LIBRARY

The College of Physicians of Philadelphia
Financial Report
FY 1999

I. Commentary

Operating revenues generated by library services and investment proceeds decreased, while revenues from contributions, museum admissions, fellowship dues, and facilities rentals increased compared to fiscal year 98. The increase in expenses can be attributed to several major repair and restoration projects, largely funded by grants, begun during this year including restoration of the lead glass windows in Mitchell Hall and a much needed duct cleaning for the HVAC system.

College initiatives aimed at cost control continue to be effective in reducing overall operating expenses reflected in the approval of a balanced budget for fiscal year 2000 and a surplus budget for fiscal year 2001.

The financial data detailed below is excerpted from the reviewed financial statements prepared by the College's external auditors, MacDade Abbott, LLP.

II. Financial Data

Operating Statement

Revenues	
Membership Dues	$ 388,747
Contributions and Grants	761,921
Facility Rental and Parking Lot Lease	429,388
Endowment Proceeds	1,037,180
Services Provided	364,845
Total Revenues	$ 2,982,081
Expenditures	
Programs and Services	$ 1,007,196
Plant and Depreciation	502,430
Benefits and Payroll Taxes	205,525
Management, Accounting, Overhead & Development	1,112,334
Total Expenditures	$ 2,827,485

Balance Sheet (June 30, 1998)

Assets	
Cash	$ 143, 918
Accounts Receivable (net)	77,541
Notes Receivable (net)	21,977
Investments (cost)	10,434,173
Other Assets	586,609
Buildings, Furnishings, and Equipment (net)	2,327,937
Total Assets	$13,592,155
Liabilities	
Accounts Payable	$ 463,000
Other Liabilities and Accruals	216,875
Total Liabilities	$ 679,875
Net Assets	
Unrestricted (mostly property)	1,950,495
Temporarily Restricted	4,904,903
Permanently Restricted	6,056,882
Total Net Assets	$12,912,280
Total Liabilities and Net Assets	$13,592,155

SUZANNE SICKINGER

Research Reports

Organizing Pathology: European and American Approaches to Medical Museology in the Nineteenth Century

Constance A. Malpas[1]

Rather than summarizing my use of the College Library's collections, I have chosen to offer some general reflections based on my research on the early history of the Mütter Museum and its place in the social history of American medicine. It is impossible, in the scope of a brief report, to do justice to the full spectrum of print and manuscript sources I had the privilege of consulting at the College. I hope that this brief overview will suffice to demonstrate the historical interest of the collections I used most frequently: the administrative archives of the Mütter Museum and the Pathological Society of Philadelphia, and historical catalogs from eighteen medical museums in Europe and the United States.

In his recent assessment of the "French impulse" in American medicine of the nineteenth century, John Warner observes that English anatomical museums were judged by visiting American medical students to be far superior to their French counterparts. "The museological strength of medical Paris," he reports, "was . . . the immense collection of living specimens displayed in the wards," and not the relatively modest collection of *préparations anatomiques* amassed by the Paris Faculty of Medicine, or by individuals like Guillaume Dupuytren. To the eyes of a medical tourist in the 1830s, Dupuytren's cabinet of 1000 specimens must have paled in comparison to the Hunterian Museum with its 12,000 pieces. It should be remembered, however, that while Hunter's museum included specimens of pathological anatomy (what Hunter called the "Pathological Series"), it was devoted chiefly to comparative anatomy. In this regard

[1]EDITOR'S NOTE: Constance Malpas served as a visiting scholar at the Wood Institute for the History of Medicine in 1999 but her report was inadvertently omitted from *T&S* XX/1999 and appears here, instead, with my apologies to author and audience.

Hunter's collection resembled the Paris Museum of Natural History more closely than any Parisian medical museum. One might more reasonably compare the museum of human pathology at Guy's Hospital in London, in 1830, to the collection made by Dupuytren at the Paris Hôtel-Dieu. Variations in the size and scope of different medical museums were nonetheless significant in the nineteenth century, and, as Warner suggests, these disparities reflect profound differences in the social and political contexts in which these institutions developed. In France, where hospital-based medical education was administered and regulated by the state, access to clinical instruction (in the wards, and at the dissection table) was widely available; in England, as in the United States, students relied on private instructors—and their anatomical collections—for training in pathological anatomy.

It is hardly surprising that national differences in medical education should have affected the development of medical museums in the nineteenth century, when anatomical specimens were regarded by both private instructors and state-run faculties as indispensable pedagogical aids. What is intriguing is the extent to which such differences are perceptible in the remaining artifacts from these collections, preserved to this day in museums like the Mütter, Wistar, or Dupuytren. For historians, the visual and verbal archives of the museum, on the one hand, and the library, on the other, are complementary: period catalogs complete imperfect artifactual records, enabling us not only to reconstruct the history of a particular collection, but also to locate it within a broader social and institutional context. Thus, a note in the *Catalogue of the Surgical and Pathological Museum of Valentine Mott* (1858) informs us that prize dissections by students at Columbia University were used to supplement a collection of some thousand pieces "made by [Mott's] own hands" and displayed in the museum as practical examples of good surgical technique.

Manual skill in dissection and surgery was, of course, valued in French schools, too—but museum specimens were more often used to preserve subtle anatomical details and unusual pathological states than to guide practice. The institutionalization of clinical instruction in France seems in fact to have discouraged the creation of independent didactic museums; the Faculty of Medicine, wary of unregulated interlopers, sought to consolidate its authority over medical education by assimilating the novel methods of anatomical preservation and display proposed by Louis Auzoux (inventor of *l'anatomie clastique*) and Félix Thibert, whose unique "library" of relief models

was approved for use in all state-run medical schools. Government emissaries visited museums in Strasbourg, London, and Florence in search of institutional models that might be emulated in France. Physicians inspecting the acclaimed collection of wax models in the Museum of Natural History in Florence concluded that the government would do better to co-opt the talents of Italian artists (by inviting them to work in France) than to purchase a replica of the "monument" they had created. The opulence of the museum's galleries was a source of concern to the visiting physicians, who worried that French medical students would, if presented with a comparably magnificent *cabinet*, abandon the dissection amphitheaters, preferring the cloistered atmosphere of the museum to the stench and filth of the *salle des morts*.

Some observers of the European medical scene, like the American physician John Rhinelander, were impressed by the extent to which foreign governments participated in the creation of medical museums. "In this country," Rhinelander regretfully observed, "public bounty has not been extended to Anatomists." After touring museums in London and Paris, Pedro Gonzalez Velasco (a Spanish Associate of the College of Physicians of Philadelphia) returned to Madrid convinced that the "protection and munificence" of government sponsors would be needed to improve the "deplorable" state of local anatomical collections. American collectors, like Thomas Mütter or George B. Wood, relied on European sources for specimens of "artificial anatomy"—compositions made of wax, wood, and papier-mâché—that added a touch of sophistication to their personal *cabinets*. The idiosyncratic institutional infrastructure of Anglo-American medical education hampered the growth of a domestic industry in anatomical preparations; entrepreneurial American merchants imported French models and sold them to local collectors and medical schools. In the 1870s and '80s, the Mütter Museum Committee disbursed considerable sums to acquire specimens (among them, a collection of vascular injections prepared by Joseph Hyrtl, and a series of French wax models of ophthalmic pathology) that exemplified the innovative conservation and preparation techniques of European model-makers. Remarkable pieces like these were prized as trophies that enhanced the prestige of the Mütter Museum and confirmed the College's progressive, scientific character.

Various European models of medical museology—as embodied, for example, in Lobstein's collection in Strasbourg, Dupuytren's cabinet in Paris, or Hunter's museum in London—were adopted by individual early nineteenth-century American collectors, most (if not

all) of whom were introduced to the methods and materials of pathological anatomy during educational tours abroad. John Collins Warren (founder of Harvard University's Warren Museum), Valentine Mott, and Caspar Wistar returned from London with ambitious plans to create their own "Hunterian" collections; Thomas Mütter patterned his collection on that of his master, Guillaume Dupuytren; William Osler preferred the model set by Virchow at his Pathological Institute in Berlin. It is significant, I think, that this emulation is apparent not only in the classificatory organization of individual collections, but also in the selection of specimens preserved within those collections. The individual strengths of different American collections—the abundance of neoplasms in Mütter's cabinet, or of vascular and lymphatic injections in Wistar's collection, for example—reflect a continuity between European and American research programs in pathology. Medical museum catalogs, rarely seen as historical documents worthy of close inspection, thus provide a unique means of tracing the conceptual evolution of pathology and reconstructing the "material" filiation of different research traditions. The formative influence of Mütter's years in Paris is as evident, it seems to me, in his collection of tumors and calculi, as in his skill as an orthopedic surgeon. Wistar's interest in circulatory and lymphatic physiology, on the other hand, reflects preoccupations shared by the London physicians with whom he worked in the 1790s. So too, in Osler's apparent predilection for specimens of endocarditis, one perceives the shadow of Virchow's hand.

The original, "seed" collections of Mütter, Wistar, and Osler no longer exist in their entirety—the deterioration of certain preparations, the sale or exchange of some specimens, the accidental loss of still others has created significant lacunae in these artifactual records. The integrity of these collections is preserved only in the earliest catalogs, and in inventories drawn up at the time of a collection's transfer between owners, or Trustees. Subsequent modifications to the collection may be tracked in successive editions of the museum's catalog; it is difficult, however, to reconstruct the evolution of a museum's accession policy (determined, for the most part, by tacit agreements about what counts as an important scientific—or historical—artifact) from "occasional" publications alone. For this reason, the administrative archives of the Mütter Museum were of inestimable value in my research. The minute-books maintained by the Mütter Museum Committee document the complex interplay of personal and institutional interests that directed the Museum's development, especially in the period between 1865 and 1885, when

the collection grew to such proportions that the Committee was forced to petition the College for additional space. Legal documents from the Court of Common Pleas (1884–1885) supplement the archival record for these years, when the Museum Committee was riven by internal conflicts over the scope and function of the collection and the responsibilities of its curator.

An unexpected store of information about the history of the Mütter Museum, and the social organization of pathology in Philadelphia more generally, is contained in the archives of the Pathological Society of Philadelphia. The early history of this organization, officially established in 1857, is somewhat obscure. It would appear that efforts to organize an association devoted to the "cultivation of General and Special Pathology, and the formation of a cabinet of specimens" began around 1838. In 1867, the Pathological Society began to hold its bi-weekly meetings (hosted, for many years, by the Pennsylvania Hospital) at the College of Physicians. This arrangement was initiated by S. Weir Mitchell, who recognized that the Society's mission dovetailed with the interests of the newly-formed Mütter Museum. Within a year of the College's agreement with Dr. Mütter, the Pathological Society abandoned its plans to erect a cabinet of pathological specimens; by 1865, the specimens collected by the Society's curator were deposited directly in the Mütter Museum. This mutually advantageous practice enabled the Society to pursue its objectives as an informal research forum, while dispensing with the costs of maintaining an anatomical collection, and provided the Mütter Museum with a regular supply of specimens.

The informal alliance that Mitchell cultivated between the Pathological Society of Philadelphia and the Mütter Museum was not without its parallels in other national and institutional contexts. Medical museums in Paris and Madrid, for example, were associated with local medical societies that promoted (and published) research in pathological anatomy. Still, the situation in Philadelphia was very different from that on the Continent, where anatomical museums were usually integrated within large administrative and educational networks that shaped the form and content of museum collections. In Strasbourg and in Paris, museum directors could rely on the local faculties of medicine for specimens of morbid anatomy collected from the teaching wards of the city hospitals, and prepared according to norms instituted by the faculty itself. The first curators of the Mütter Museum, by contrast, had little or no control over accessions; if they guided the Museum Committee's decisions for

overseas purchases, they lacked the authority to enact a coherent accession policy. (If a programmatic triage of specimens donated by the Pathological Society and other local benefactors was carried out, I have found no record of it in the Museum's administrative archives.) For many years, the absence of official guidelines for the acquisition of new specimens posed no difficulties beyond those—already considerable—of cataloguing an increasingly chaotic collection of goods; it was not until Guy Hinsdale began his term as curator, in 1884, that the costs of unchecked growth became clear. The tensions that developed between Hinsdale and the Museum Committee over the course of his 17-year term as curator are worthy of further study, as a chapter in the professionalization of this unique, and uniquely important, occupation.

If regrettably brief, my resident research fellowship at the College was nonetheless wonderfully productive. I am pleased to say that my use of the Library and archival collections has substantially enriched my understanding of the Mütter Museum's unique place in the development of American medical museology, and in the social organization of nineteenth-century American intellectual culture more generally. The distinctive character of the American (possibly, Anglo-American) social and institutional context, it now seems to me, must be taken into account in explaining the rise of a so-called "analytic" mode of scientific inquiry in the nineteenth century, for it is far from clear that the Parisian model of "museological science" was as representative or monolithic as has been supposed. It is not at all clear, for instance, that the clinical orientation of French medical education was conducive to the creation of major anatomical collections, or that the hospital-based teaching methods of the "Paris School" can be assimilated to other museological initiatives of the period. Further research on the adaptive emulation of European museological models by American individuals, on the one hand, and institutions, on the other, should contribute to our understanding of how the social—and spatial—organization of pathology shaped the development of medical science in the nineteenth century.

A part of the research I carried out at the College was presented at the History of Science Society held in Pittsburgh in November of 1999 as part of a session on medical museums. Gretchen Worden chaired the session and John Harley Warner provided commentary on the papers. It was a privilege, at the conference, to acknowledge the College of Physicians' valuable archival and artifactual resources and the Fellowship Committee's much-appreciated support of my research.

I will take this opportunity to thank the College Staff, all of whom went out of their way to make my use of the College's collections as fruitful as possible. I am particularly grateful to Christopher Stanwood for arranging additional access and for duplicating documents I did not have time to use in the Library, to Marjorie Smink for her unflagging efforts to make my stay in Philadelphia both productive and pleasant, to Gretchen Worden for sharing information from her own files and from her first-hand experience as Director of the Mütter Museum, and to Sofie Sereda for ensuring that every detail was attended to. I extend my sincere thanks, finally, to the College's Fellowship Committee for having made my research in the Library and archives possible.

"For the Profession or the Public?" Artificial Anatomy and the Growth of Popular Anatomical Museums

Rene Burmeister Blank

In 1840, Gunning S. Bedford presented the anatomical models of Frenchman Louis Auzoux to the American public. The benefits, Bedford claimed, would be great: "Anatomy can now become the pursuit of all,—and the time approaches when no individual will be considered as having completed his education without previously having learned something of the philosophy of his wonderful mechanism." Such hopes for the dissemination of anatomical knowledge were now possible because Auzoux had succeeded in purging "the loathsomeness of the dissecting room" from the study of anatomy. He had done so by creating an accurate but beautiful representation of the human body; no longer was anatomical study tied to the use of cadavers.[1] In order to bolster his position, Bedford reproduced reports by the Royal Academy of Medicine in Paris, which had also endorsed Auzoux's invention. If Bedford had wished, he could have included excerpts from the English press praising the practical advantages Azoux's models offered the medical profession: they were solid, durable, not affected by variations in temperature, and the

[1]Gunning S. Bedford, *Reports on the Artificial Anatomy of Dr. Auzoux* (New York, 1840), iiv.

least expensive substitute for the cadaver yet produced.[2] Soon Auzoux's firm was joined by others in producing artificial anatomy for an international market.

During my stay at the College of Physicians, I pursued the issues raised by advocates of artificial anatomy. I sought first to analyze the impact of these sanitized figures on popular instruction and then to gauge the reaction of the medical profession to attempts to disseminate anatomical knowledge. The library's extensive collection of nineteenth-century medical journals and the archival records from the Mütter Museum proved indispensable to this project. My research formed a crucial piece of my dissertation on the history of popular anatomical museums. Proprietors of popular museums exhibited the interior of the body, anatomical preparations, and wax models for the general public. In addition to basic anatomy, these popular exhibits presented the science of reproduction, focusing on male and female reproductive organs, fetuses in various stages of development, and sexual pathology. Promising comprehensive anatomical instruction, proprietors offered free lectures and sold pamphlets translating medical terminology into lay language.

Because of Auzoux's firm and those that followed, anatomical models quickly found their way into professional and popular museums alike. Professional museums built up their own collection of models to supplement medical education. By 1870, the Warren Anatomical Museum at Harvard University alone possessed 335 models.[3] By separating dissection and its connections to death while maintaining detailed accuracy, artificial anatomy blurred the distinctions between professional and popular medical instruction. Manufacturers extolled the usefulness of anatomical knowledge for the general audience while also citing their applicability to professional education.

Proprietors of popular exhibits also tapped into the increasing trade in artificial anatomy. Beginning in the 1820s in England, small anatomical exhibits became a common feature of London's urban culture. Centered around full-length wax figures, popular exhibitions offered audiences lessons in basic anatomy. By mid-century, proprietors had expanded anatomical museums in size while elaborating on their self-designated role as public educator. Using the large number

---

[2] *Times*, London, 1 April 1825.

[3] J. B. S. Jackson, *Descriptive Catalogue of the Warren Anatomical Museum* (Boston, 1870), iv, vi. This number does not include plaster casts and wax models by unidentified modelers.

of sale catalogues held in the library of the College of Physicians, I was able to establish a correlation between the expansion of popular museums and the growth in firms offering artificial anatomy for sale.

The archival records of the Mütter Museum provided me with insight into how the trade in artificial anatomy was conducted. Because the museum was active during the nineteenth century, curators were in contact with European firms selling models. The correspondence between the curators and these firms was useful in establishing the affordability and availability of anatomical material. I also discovered the role that intermediary companies played. Medical supply companies in the United States offered access to European firms by distributing their catalogues and placing orders for purchasers. Scrutiny of acquisition records also allowed me to gain a better sense of the extent to which anatomical models were available internationally. While at the College of Physicians, I was also able to have lengthy discussions with Gretchen Worden, Director of the Mütter Museum, who generously shared her files on this subject.

Finally, my residence at the College of Physicians allowed me to confirm my hypothesis that despite a shift in opinion during the second half of the nineteenth century, advocates for the use of artificial anatomy for popular education were tapping into a strain of thought from within the medical community. At the College, I had access to the extensive collection of nineteenth-century medical journals that allowed me to evaluate changing professional opinions as to the place and purpose of popular medical instruction. Because many of the journals were started by individual doctors to give voice to their concerns, they provide a valuable view into a sometimes contentious medical world. A segment of the profession, however, clearly embraced the role of "medical enlighteners." Based on their philosophy of progress through science and the dissemination of knowledge, they authored numerous medical texts for lay readers. Although not unanimous on the extent to which the public should be empowered, many believed that the general public should be armed with information with which they could manage their own health. Beddoes advocated anatomical education, "teaching children accurately to distinguish the parts of the body."[4] He envisioned the site of the popular medical education to be the local infirmaries.[5]

---

[4]Thomas Beddoes, *Hygëia: or Essays Moral and Medical, on the Causes Affecting the Personal State of our Middling and Affluent Classes* (Bristol, 1802–3), vol. 2, p. 46.
[5]Roy Porter, "Spreading Medical Enlightenment," in *The Popularization of Medicine 1650–1850*, ed. Roy Porter (New York: Routledge, 1992), pp. 216, 221–222.

Proprietors of popular exhibitions had different ideas and attempted to replicate the content of professional museums alongside traveling shows and street fairs. Public anatomical exhibitions, often disparaged as dime museums run by "quacks," picked up on the language of democratization when offering the public anatomical instruction. They offered to open the doors of knowledge to men and women and sometimes directly contested medical authority. One such museum was the Grand Anatomical Museum, which exhibited in New York during the 1850s. Among the many models and charts on display, the proprietors singled out their model "made by the distinguished Auzoux of Paris."[6]

Popular anatomical exhibits operated without direct professional sanction and after mid-century they were regularly denounced in the medical press for their association with unlicensed practitioners. However, the origin of popular exhibits suggests a very different beginning. In the first three decades of operation, popular anatomical exhibits attempted to democratize medical science. Having constructed their displays from anatomical material meant for medical education, proprietors were able to invite visitors to see an accurate reflection of the state of medical knowledge. It would not be until the second half of the nineteenth century that borderline practitioners would enlist anatomical exhibits in their quest for patients. Until then, proprietors used artificial anatomy as it was designed to be used—to open up anatomical instruction to the general public as Bedford had advocated.

Engines for Scientific Research and Education: A Comparison of Natural History and Medical Museums, 1870–1930

Erin McCleary

Museums like the College of Physicians' Mütter Museum were once found in almost every American medical school, where they formed an important component of medical education in the nineteenth and early twentieth centuries. These museums housed anatom-

[6]Grand Anatomical Museum, *Catalogue of the New York Anatomical Gallery* (New York, 1850), unnumbered introduction.

ical and pathological models and specimens that were used as visual aids and illustrations for teaching and for research purposes. The few historians who have examined medical museums have tended to portray these museums as either close kin to the dime museum and freak show or as strange and static mausoleums with nebulous connections to medical science. In my larger project on the role of museums in medical education, I argue that these museums were more than just storehouses of specimens. Late nineteenth- and early twentieth-century medical museums were active sites of knowledge production and transmission for the physicians who created, supported, and promoted them. In the period from approximately 1870 to 1930, medical museums served functions analogous to those filled by contemporary natural history museums. Both types of museums were occupational spaces for groups of scientists who defined themselves and their disciplines in relationship to the type of work that museums facilitated, namely taxonomy, inventory, classification, and ordering.[1]

As museum-based sciences, anatomy and pathology were dependent upon and defined by the use of specimens, both gross and microscopic. Specimens were at once media for the transmission of knowledge and constitutive of the knowledge itself. They held a multiplicity of meanings for physicians, who used specimens as the basis for research, teaching, and professional reputation and also for members of the public, who encountered specimens through visits to medical museums and popular anatomy museums and through descriptions in the public press. In the medical museum, specimens were the physical embodiment of knowledge about the body and disease, and their physical arrangement within the museum formed visual and three-dimensional representations of anatomy and pathology.

While emphasis on the similarities between natural history museums and medical museums can illuminate medical museums' intellectual and pedagogical functions, a significant difference between science conducted in the natural history museum and the science displayed in the medical museum lies in the origin of the material used in the two institutions. Natural history museums could draw

---

[1]The group of scientists who worked in or defined themselves in relationship to the medical museum was much smaller than the group who worked in or with natural history museums. The difference in scale between the two types of museums does not, I think, detract from my larger point, which is that medical museums, like natural history museums, should be understood as active sites of knowledge production, not as freak shows or storehouses.

upon a number of sources for scientific material. Zoologists and botanists could determine their needs and desires and draw upon the collecting work of amateur practitioners, professional collectors, and hunters. They could also purchase material from natural history dealers or supply houses. If a particular species of bird was desired, for instance, an ornithologist could simply go shoot the bird himself.

This option was, of course, not open to the anatomist or pathologist interested in building a medical museum collection. How, then, did medical museums fill their cases? This is one of the questions I tried to answer by examining the records of the Mütter Museum. The Mütter's records date from the College of Physicians' initial negotiations with Philadelphia surgeon Thomas Dent Mütter in 1856, and include records of acquisitions, detailed minutes from the museum's governing committee, the correspondence of the museum's curators, financial records, the museum's early catalogs, and monthly as well as annual reports.

Because the Mütter Museum was somewhat atypical of medical museums—it was not affiliated with any medical school or hospital—it provides an ideal opportunity for tracing the origins of specimens. The records of the Mütter show that medical museums drew upon a network of sources in stocking their cases, including, in the Mütter's case, European artisans, entrepreneurial physicians who created and marketed specimens as a supplemental source of income, physicians and private individuals who came into the possession of an interesting or unique specimen, and commercial supply houses. Other specimens owned by the Mütter were incorporated into the collection after the specimen (or the person from whom the specimen originated) was discussed in a public forum.

My interest in how medical museums obtained specimens derived from my interest in how medical museums were used by physicians and students. How these patrons used the museum was, I believe, intimately related to the resources—both spatial and intellectual—provided by the museum. But examining the Mütter's records on specimen acquisition also compelled me to consider *who* those specimens used to be. Historians such as Todd Savitt, David Humphreys, and Ruth Richardson have examined the social origins of cadavers and have shown that nineteenth-century medical colleges relied on the bodies of the poor and disenfranchised to fill the needs of their dissecting rooms. The passage of state "anatomy acts" in the period between 1860 and 1910, laws that stipulated how bodies were distributed to medical schools, lessened the demand for ca-

davers from extra-legal sources like grave robbing, but did not alter the social origins of the cadavers. Most of these laws made available "unclaimed" bodies—persons who died in state institutions such as prisons, almshouses, and public hospitals or whose family and friends lacked the financial resources needed for burial. The bodies of poorer African-Americans were frequently exploited in this process.

The number of specimens in the Mütter derived from hospital practice is a clear indicator that the poor formed an important source for the museum. Yet the conclusions reached by historians Savitt, Humphreys, and Richardson are not completely applicable to the museum. These historians are primarily interested in the acquisition of cadavers for anatomical dissection, a messy process for which almost any fresh body will do. Dissection taught foundational skills: how to wield a knife, the relationships of the interior parts, how to observe signs of disease. Museum specimens, on the other hand, served more specialized purposes, functioning as illustrations of specific structures or conditions, the study of which would enable a student to recognize all others of its kind. The post-mortem discrimination against African-Americans studied by Savitt and Humphreys is less evident in museum specimens, for the physician had to "collect" those anatomical anomalies or pathological manifestations which interested him as they appeared in his practice or in supply house catalogs. And for some purposes, such as the bone sets and skeletons used for anatomical teaching, only the most normal—i.e., adult white male—specimen would do.

Most interestingly, my examination of the Mütter's detailed records has enabled me to track the careers of several individual museum preparators. Rarely physicians, preparators are marginal figures in most museum records and narratives, but were the most essential workers in a museum's routine of specimen preparation. For instance, Jules Bailly, a native of France, appears in the Mütter's records as a contract preparator in the 1880s. By the 1890s, he is mentioned in Henry A. Ward's discussions of his labor problems at his commercial anatomical supply house in Rochester, New York. By 1907, Ward had Americanized his staff of primarily French preparators and articulators and Bailly is listed in the catalogs of the Anglophone McGill University in Montreal as an employee of the pathology department. Although Bailly did no "scientific" work in these medical museums or Ward's supply house, his labor was essential to these institutions' continued functioning. This labor, however, can remain invisible until the history of material artifacts like pathological and anatomical specimens is explored.

Medical museums never approached the cultural appeal or scientific importance of natural history museums. By focusing on the material similarities of scientific practice within the two types of museums, I hope to explore the possibilities medical museum curators once envisioned for their museums, possibilities that were derived from and based on the scientific work done in natural history museums.

Organotherapy and Its Relationship to Endocrinology: An Historical Approach

David H. Serlin

I used my Wood Resident Research Fellowship at the College of Physicians of Philadelphia (hereafter CPP) to conduct research on organotherapy, the use of animal gland extracts during the late nineteenth and early twentieth centuries to treat glandular and other perceived constitutional disorders. My goal is to explore the early history of organotherapy as part of a larger book or monograph project on the social and cultural history of non-reproductive endocrinology in the twentieth century.

The CPP has one of the best assembled collections of organotherapy trade catalogue literature in the United States, and it was my intention to use this literature to explicate the "rise and fall" of organotherapy within the larger clinical and commercial history of endocrinology. During my brief tenure at the CPP, however, I was fortunate enough to be able to make full use of the Library's archival and book collections, well beyond its substantial holdings in organotherapy. These included forays into primary and secondary materials on the uses of organotherapy (and, later, early endocrinology) to treat anti-social, criminal, or "deviant" individuals. I also looked at numerous secondary articles—and two superb bibliographical volumes—on shifting attitudes toward endocrinology in African-American health care, especially gynecology and obstetrics, from about 1910 to 1950.

Following French physiologist Brown-Séquard's claim in 1889 that the injected testicular fluids of roosters had "rejuvenated" him as an elixir of youth, organotherapy emerged as a serious (though not entirely uncontested) area of research that was, historically, the precursor to endocrinology as a modern discipline. I argue that, de-

spite being overshadowed by the long history of hormone therapy, organotherapy was a fascinating—if at times bizarre—professional practice and scientific discipline whose place in the annals of late nineteenth- and early twentieth-century medical history deserves to be better known. Part of my goal in studying the emergence and decline of organotherapy is to put the clinical uses of organic animal products within the social and intellectual climate of United States during the nineteenth century. How, for example, do we understand the therapeutic applications of animal extracts in a period when Darwinian boundaries between human and animal, eugenical boundaries between "fit" and "unfit" families and individuals, and nativist boundaries between "white citizens" and non-white immigrants and former slaves were beginning to emerge and solidify among federal and local legislators, policymakers, and health practitioners?

The CPP Library's collection of organotherapy trade materials—including catalogues, promotional packets, illustrations, physician endorsements, and testimonial letters—was more rich and diverse than I expected, comprising more than three dozen manufacturers. Although there were quite a few local Philadelphia companies involved in production, organotherapy was fully realized as a national and international enterprise, and this is well represented in the CPP's collections. Henry Harrower, who established the successful Harrower Laboratories in the embryonic Los Angeles suburb of Glendale in 1918, brought a sober authority to his company by comparing his products with those of inferior hucksters. "The Lewis Carroll of today," Harrower lamented in a 1922 mini-manifesto *Adventures in Endocrinology*, "would have Alice nibble from a pituitary mushroom in her left hand and a luetin in her right and presto! she is any height desired." Although the vast majority of trade materials were published between 1895 and 1925, catalogues published later than 1925 demonstrate the considerable power that organotherapy had, even after the disciplinary establishment of modern endocrinology. In 1930, for example, the Cole Chemical Company of St. Louis produced a catalogue, "Endocrine Facts and Pluriglandular Formulae," which highlighted the uses of "organ-o-tone" mixtures produced from the thyroid, pituitary, spleen, ovaries, adrenals, and lymph nodes of cattle, pigs, goats, and sheep. Cole recommended these formulae to pharmacists and physicians to control a range of serious health concerns, such as high blood pressure, anemia, asthma, menorrhagia, and neuromuscular disorders. These preparations were also used to treat a contentious assortment of health concerns such

as obesity, "sexual apathy," and the treatment of "defective children, retarded development (physical or mental)."

As rich as the evidence in these catalogues is, I was also able to examine them in the context of contemporaneous medical articles and reports that are housed in the CPP Historical Library's collection of uncatalogued offprints organized by thematic topics. In an editorial in the October 1893 *American Medico-Surgical Bulletin*, for example, William Henry Porter gave his enthusiastic support for "animal juices" and declared that "The proposition to ignore completely the chemical side of [organotherapy] . . . appears like taking a gigantic stride backward." Writing in the January 1916 issue of the *Northwest Medical Journal*, Frank R. Starkey concluded that "[i]n children who are backward in either mental or physical development, the administration of organotherapy has given better results than any other form of treatment." Contrary to my expectations, however, not all physicians were willing to make professional concessions to the much-touted efficacy of these "pluriglandular" therapies. Writing in *JAMA* in 1925, for example, John Ruhräh criticized what he called the "supertherapeutists" and argued that "Because [some glandular extracts] are useful, it does not follow that every conceivable tissue, in minute doses . . . will be followed by beneficent changes in an organism."

The uses of organotherapy and, later, endocrinology to regulate perceived anti-social behaviors led me to research a range of related medical topics of the period. Using the context of endocrinology to explore the complex relationships between medical research and disadvantaged groups during the Progressive Era, I examined articles from the CPP Library's collections of uncatalogued offprints on the state of African-American health care and attitudes toward African-Americans and illness, from the 1890s through the 1940s. Unsurprisingly, many of these articles confirmed the racist and often eugenical assumptions by Southern physicians and medical professors about the connections between "Negroes," crime, and disease. In the December 4, 1929 issue of the *Medical Journal and Record*, John R. Harding discussed using endocrine preparations to reform dangerous criminals through what he called "penal therapy." A more clinical discussion of endocrine treatment and race is provided by an editorial, "Hyperthyroidism in the Negro," in the August 1934 *Western Journal of Obstetrics & Gynecology*. Quite a few others, by contrast, were surprising for their positive attitudes toward a more egalitarian view of health care in the United States. Writing in *Hospital Social Service* in 1933, M. O. Bousfield wrote that "Poverty,

poor housing, lack of medical services, and an unequal and inadequate share of such services where they exist, North or South . . . account for the [health] plight of the Negro." Still others were completely unexpected, such as Albert S. Beckham's patent endorsement of eugenical principles published in an August 1924 issue of the black community newspaper, *The Crisis*.

One of the most useful items I found during my research tenure was an extremely hard-to-find and comprehensive *History of Public Health, Health Problems, Facilities, and Services in the Black Community* compiled by Lenwood G. Davis (Council of Planning Libraries, 1975). After a patron requested it unsuccessfully last year, the CPP Library had apparently concluded that this book was missing from its collections, but to my delight it was located. The bibliography was a gold-mine of sources that point to how African-American health care was discussed and debated, not only in the predominantly white (and, typically, racist) medical journals of the day but among African-American physicians and scientists who published in black professional journals and newspapers. In this regard, I also found another CPP bibliography quite useful, Mitchell F. Rice's and Woodrow Jones, Jr.'s extensively researched *Health of Black Americans from Post Reconstruction to Integration, 1871–1960* (Greenwood Press, 1990). Together, these two bibliographies pointed me toward articles and books covering a range of health care and medical issues at the intersection of endocrinology and race, including birth control, congenital birth deformity, obstetrics and gynecology, eugenics and sterilization, family and community hygiene, and glandular disorders among many African-American constituencies.

In closing, I would like to add that, in my short time at the Library, I do not think that I even scratched the surface of the CPP's archival collections of organotherapy materials. Due to time and access restrictions, I was only able to examine about a dozen, or about one-third, of the assorted files containing organotherapy trade materials and catalogues. This is truly an embarrassment of riches. I look forward to continuing my research amidst these materials. There is a similar surfeit of Library holdings concerning the perceived scientific relationship(s) between glandular disorders, criminal behavior, and racial hygiene, which I would like to explore at a later date. In closing, I would like acknowledge Christopher Stanwood, the historical reference librarian, for his help in locating references and arranging copying, in addition to my deep gratitude toward the entire staff for the institutional and financial support I received as a visiting scholar.

A Crossroad of Art and Science: Four Centuries of Medical Illustrations

Ann Starr

My 1999 Wood Institute Short-Term Research Fellowship enabled me to make significant additions to both my own artistic imagery and to the background information supporting it. I am using my research constantly. On March 30, 2000, I presented "The Female Principle" in Arlington, Texas. This paper included a discussion and slides of the sixteenth- through eighteenth-century drawings of the uterus I studied at the College of Physicians of Philadelphia (CPP). In April I gave a talk about imagery of the intestines at the Society for Literature and Science meeting in Brussels, again using my CPP research in early anatomical imagery as it complements contemporary medical illustration and my own expressive drawings and paintings of human organs. From Brussels, I will travel to the Netherlands to draw in anatomical museums in Amsterdam and Utrecht, guided to both sites by Gretchen Worden, Director of the Mütter Museum at the CPP. Within just the span of four weeks, my Fellowship yielded a substantial harvest for my audiences and for myself.

I came to the College wondering if I would find, in early modern anatomical illustrations, certain types of information—*interpretations*—of the human body that have been lost in twentieth-century conventions of anatomical illustration. My theory is that we are so familiar with the medical charts commonly printed in secondary school textbooks and hanging in doctors' offices that we have come to consider the anatomical body an exclusively medical phenomenon. In the art I myself make about the body, I have been focusing on a combination of the anatomical body (medical, scientific, and *generalized*) with the emotional, experiential, *individualized* body. I wonder, "How do we imagine our own interiors, in such visual terms as the size of particular organs, their relative positions, textures, colors, and forms?"

I also wished to use my Fellowship to examine the artistic processes of the early anatomical illustrators and how the circumstances of their work might have affected the outcomes of their pictures. How is it that the image of the uterus or the intestines changes over time when, presumably, the literal organs do not? I wished to look at these pictures *as an artist thinking about artistic issues*. That

is, what do I respond to versus what am I asked to show? How will I compose the page? What assumptions am I making about my audience? How much—if any—anatomical knowledge do I have? What do I focus on and what do I suppress? I wanted to see these pictures as artistic productions *in themselves*—not only as illustrative of another's findings. The artist's work and the scientist's are not necessarily the same.

Guided by Johann Ludwig Choulant, whose 1843 "Historical and Bibliographical Anatomic Illustration in its Relation to Anatomic Science and Graphic Arts" (translated from German) provides an excellent survey and appreciation of the great early illustrators, I was able to sit down with the books in hand and take extensive notes—in writing and drawing both. As an artist with no institutional affiliation, I had not previously had access to these breathtaking materials. I was excited by the great amount of information and ideas I derived from the pictures in two weeks. Even more, I was moved by the deep satisfaction I experienced as an artist holding the work of masters and colleagues, whose work dealt with matters similar to my own.

The works I examined that were most useful to me were:

- a facsimile of *The fasciculus medicinae of Johannes de Kethum alemanus*, 1491
- *Antropologia de hominis dignitate, natura, et proprietatibus . . .*, Magnus Hundt, 1501
- *Description ou anatomie de toutes les parties du corps humain . . .*, Walter Hermann Ryff, 1542
- *De dissectione partium corporis humani libri tres*, Carolus Stephanus [Chas. Etienne], 1545
- *Tabulae anatomicae . . .*, Bartholomaeus Eustachius, 1552
- *Observationes anatomicae in quinque libros . . .*, G. Falloppio, 1588
- facsimile edition of *I manoscritti di Leonardo da Vinci della Reale biblioteca di Windsor*, 1901
- *De formato foetu*, Fabricius ab Aquapendente, 1606
- *Anatomia viri in qua tota humani corporis fabrica . . .*, A. Vesalius, 1617
- *Tabulae anatomicae LXXXVIII . . .*, Placentinus Casserius, 1645
- *De vasis lymphaticis tabulae Rudbeckianae*, 1659
- *A survey of the microcosme: or the anatomy of the bodies of man and woman*, Johannes Remmelinus, 1702

- *Fifteenth century miniatures of extramural dissections*, E. C. Streeter and C. Singer, 1924

I also consulted many secondary works and I took advantage of the library's card and electronic catalogues for extensive bibliographic research. I have noted many primary books I missed due to lack of time, but I also made lists of works to study in a related area of my drawing and painting, that is, teratology. Thus I have a head start on my next visit.

While my research questions are broad enough to defy the succinct summary answer, my study at the CPP did indeed provide me with imagery needed to argue more forcefully that the interior of the body has been and can be visually interpreted in ways that are not exclusively medical. By seeing the way the same "facts" of body parts were illustrated before medicine was the science we know, I was able to reinforce my idea that individuals who lack medical understanding develop private imagery of the body related more to personal experience than to anatomy. Charles Etienne illustrates organs by posing the whole figure, though only the small area of interest is open. The figure is placed athwart a barren thorn-tree that grows by either a stump or a tumbled classical column. There is a resonance in the pose, in the relationship of the part to the whole, and in the environment in which the body rests that suggest that the interior and its study are *contextual*. Even pages that depict dissected or decontextualized organs are usually decorated: the facts are not "*just*" the facts; there is always more. The "more" is not *fact*, but lies in the realms of interpretation and imagination.

These observations—of particular images, or styles of illustration, of their content—have fed my own imagination in ways that enrich and deepen my own drawing and painting. I have drawn the body in morgues and pathology museums in the past, and my work is rich in observation. This infusion of head *and* hand-knowledge of historical visual tradition leads me to see anew what I inspect at first hand and to reconsider the relationship of my material to its page.

My original hope had been to spend one week in the Library and one in the Mütter Museum, drawing. Circumstances did not permit this due to schedules, on the one hand, but primarily because I found the examination of books too compelling and time-consuming to give up. Ms. Worden and I had several long conversations, however, very greatly to my benefit. Those alone were worth the Fellowship, as she helped me learn about a wide array of human and museum re-

sources to advance my work with anatomy and images of the interior of the body.

My Wood Fellowship was a gift of resources that have enriched me immeasurably. Between the collection, the solicitousness of the staff throughout the College, and Ms. Worden as a unique and invaluable resource in herself, I have experienced an enormous step forward in a very brief time. For all, I am deeply grateful.

Art and Hallucinations: Revealing a Biological Basis of Imagery

Ann Hopkins Wilson

Visual imagery is as old as humankind. A human being makes a mark in the sand, in the dirt, in a rock, with charcoal, with pigment. Children scribble the minute their hand will close on an object and hold it. There is a surprising consistency to be found in these most basic images humans make, from the earliest known markings in ancient archeology, to the drawings of children, to the work of contemporary abstract artists.

A study of hallucinations reveals a possible source for this consistency. In the first stage of a visual hallucination, a particular set of geometric shapes appears. These basic shapes are also found in the artwork of ancient cultures, in the developing child's artwork, in the artwork of the mentally ill, and in contemporary artists' work. These same geometries have been identified independently by physicists studying the natural world and the laws that determine its creation. While largely circumstantial, this data suggests that our biological make-up could have an inescapable effect on how we see, what we see, and why we find it meaningful.

My receipt of the Wood Resident Research Fellowship provided access to the historical library of the College of Physicians of Philadelphia to research this topic. The older texts and journals were invaluable, as most of what is presently known was already established by the early to the mid-1900s. I also had the opportunity to review many additional books and journals that describe and compare various cultures' uses of hallucinations as part of their religious or healing ceremonies.

A hallucination is not an unusual or rare experience. Many studies have investigated the occurrence of hallucinations in the general population. According to these studies, approximately 10–25% of healthy people have experienced at least one visual hallucination. The most common hallucination in the general public involves seeing a person. Bereavement hallucinations occur in 50–60% of the widowed, who see or feel the presence of the deceased spouse. Hallucinations are also common as a result of drug use. Interest in hallucinations was intensified by the middle of the twentieth century with the discovery and synthesis of lysergic acid (LSD) during the 1950s and 1960s and its use by some members of the general population.

In 1838, in France, Jean Esquirol began defining the phenomenon of hallucinations in modern medical terms as an aspect of psychophathology. He noted the similarity of dreams and hallucinations, which today are considered part of the same spectrum of mental activity. Esquirol's definition was "an internal conviction of a sensation without an external stimulus" (Winberger and Grant, 1940). A hallucination is the seeing, hearing, or sensing of something that is not there in reality. Hallucinations appear spontaneously and are vivid and detailed and "real" to the person experiencing them. They can occur through any of our senses and thus can be visual, auditory, olfactory, gustatory, tactile, or kinesthetic.

Brierre de Boismont, a French doctor specializing in mental disorders, published an extensive volume in 1853 in which he attempted to differentiate the types of hallucinations in mental disease. He began identifying the conditions under which these hallucinations occurred. These included: "unrestrained imagination, superstition, prolonged concentration on one subject, darkness and obscurity, the silence of night, solitude and long imprisonment, reverie, prayer and sleeplessness" (Bliss and Clark, 1962). This can today be expanded and made more specific, to include sensory deprivation, fasting or starvation, eye disease, brain tumors or disease, rhythmic movement (drumming, dancing, rattles), pharmacologic agents, alcohol intoxication or withdrawal, fatigue or sleep deprivation, just before sleep or just after waking (hypnagogic or hypnopompic conditions), psychological stress, oxygen deficiency, and with certain psychiatric illnesses.

Heinrich Kluver began his first systematic study of the actual imagery of hallucinations in 1926. He used himself as a subject, as had other experimental scientists, and ingested mescaline. He combined his experiences with reports from others who had ingested

mescaline and identified four types of recurring imagery, which he termed "formed constants." These were (1) the lattice or chessboard design (2) cobweb figures, (3) tunnel or cone, and (4) spirals. Much research of the time and since has confirmed and broadened these as the first stage of hallucinatory images. The list has expanded and become more detailed to include (1) dots and circles, (2) zigzags or wavy lines, (3) lattice patterns or grids, (4) cobwebs, nets, and radials, (5) spirals, (6) tunnels, and (7) lines. Color and movement are two other variables that have been found to occur regularly.

Many researchers have suggested the sources of these images to be entopic phenomena. These occur because a person can actually "see" structures within their own eye under certain light conditions. A branching network of blood vessels, individual blood cells moving through a capillary, teardrops or mucus on the cornea, and horizontal bands caused by eyelid movement are examples known to be visible to individuals under special conditions. Additionally, the pattern of rods and cones that form the retina of the eye have been suggested as the biological source of the parallel figures and the honeycomb, grid-like patterns often seen during hallucinations. The fibers of the eye's lens are arranged about six diverging axes that create the rays commonly seen under faraway lights. This could generate a radial pattern. The movement of the eyeball would cause shimmering, vibrations, rotations, and flickers. All the images may serve as templates upon which the forms seen during a hallucination are made.

These phenomenon would normally be inhibited and thus excluded from our visual experience. We know vision occurs as the eye receives massive amounts of input and sends it to the visual cortex of the brain, which processes and edits and sends information back to the eye telling it what to look for and what to inhibit further. This is a continuous process. A lot of extraneous material must be constantly inhibited. In times of sensory deprivation, this inhibition may be lifted. Hallucinatory drugs may also remove inhibition. Schizophrenic patients experiencing visual hallucinations may not have the ability to control the flow of this sensory material or they may be using this internal flood of material to defend themselves from an outer environment that is perceived of as too threatening to confront. Persons who have experienced hallucinations secondary to drug use and patients with chronic schizophrenia both report being overwhelmed by a rush of unstoppable sensations.

Some people who suffer from migraines experience visual hallucinations called auras prior to the onset of other symptoms. They

report seeing flashing spots, shimmering geometric forms, obscured areas in their vision, radiating parallel lines, and repetitive, zigzag lines. Studies of migraines have suggested that the source of visual auras is in the occipital cortex rather than the retina. Research studies have suggested that migraines are associated with a wave-like spread of depressed cortical activity with hyperactive neurons at the leading edge travelling from the occipital lobes toward the frontal gyri.

Other hallucinations appear to originate within the occipital lobes as well. Occipital epilepsy can produce elementary visual hallucinations of multicolored circles and spheres, many moving directionally or traveling from one side of the visual field to the other. These are sometimes mistaken for migraines with aura. Patients with tumors in an occipital lobe often report seeing flashes of light, balls of fire, stars, spots, and zigzags. Electrical stimulation of the occipital lobe by Penfield and his associates (Horowitz, 1968) caused these same geometric figures of primary stage hallucination.

In early times, religion and medicine were intertwined and equally central for many societies. The challenge of survival was greater and subjective experience was accorded greater value and utility than today when they take second place to rationality and experimental science. As we have become more secure physically, we have reduced our contact with altered states of consciousness. Modern society makes a rigid distinction between reality and fantasy or imagination. In our contemporary culture, a hallucination is seen as something fearful, pathological, deviant and it is often denied. Earlier in human history more cultures received hallucinations and often dreams as guiding forces and thus welcomed and encouraged them.

In those cultures, visions were sought out in a variety of ways. In addition to the use of hallucinogenic plant sources, extremely painful physical ordeals and self-mutilation were used by persons seeking entry into the "spirit" world. Some inoculated themselves with venoms found in toads and frogs. Fasting, isolation, and ceremonies to generate these images were embraced. No matter how the means and rituals varied, the intention was the same—to create an altered consciousness in which the person would gain knowledge and power by travelling with the spirits invoked.

Archeologist David Lewis-Williams has proposed a connection between ancient rock art and the first stages of a hallucination. He has primarily concentrated on an area in South Africa where he has

studied the cave art of the San tribe. It is known that San communities traditionally have a shaman or leading healing figure who attempts to alter their state of consciousness so as to receive guiding communications from the spirit world. Although the idea that such hallucinations would be recorded in tribal art remains controversial among Lewis-Williams' peers, he makes a compelling case. In many of the images he has documented in caves in South Africa, the location of the artwork often suggests a ceremonial purpose.

Other archeologists have suggested the same hypothesis, based on similar imagery found half way around the world from the San caves. In the California Great Basin, David Whitley, a colleague of Lewis-Williams, has investigated a group of rock carvings dating from 500 to 1200 A.D. of the Shoshonean Coso people. He has found material confirming Lewis-Williams' theory, both from the ethnography of the shamanic culture that had lived there and from the extensive imagery of geometric forms reflecting primary stage hallucinations.

The development of children's art-making presents another intriguing piece to this investigation. Rhoda Kellogg, a child educator, has collected and analyzed thousands of children's drawings. From her studies she has established a progression in the development of imagery from scribbles at age two to approximately age five, when cultural and adult influences begin to be seen. Children's art-making during this early time has been established to be universal. All children, all over the world, go through the same developing stages and at approximately the same age. The drawings of a four year old in Japan will look the same as the drawings of a four year old in Africa or in this country. The first scribble stage includes five of the geometric forms of primary stage hallucinations. As a child's drawing abilities develop, the rest of the forms begin to appear.

Kellogg suggested that children's early drawing is based on emerging visual perceptions of the child as a "record of mental processes." Her ideas were influenced by W. Kohler, a Gestalt-based psychologist who believed that impetus and the ability to draw was an innate physiological function of the human brain. According to Kellogg, this fundamentally aesthetic drive was present in even the earliest scribbles by children.

Nineteenth- and twentieth-century abstract painters also use the form-constants found in hallucinations. Wassily Kandinsky, often recognized as one of the first abstract painters, was aware of the hallucinatory content of his imagery. In 1888 he wrote a paper

describing a delirium he experienced and the images that he observed. His own paintings make extensive use of the checkerboard patterns, parallel lines, parallel curves, dot patterns, and radiating lines. A shimmering or halo effect is often portrayed. Much of Kandinsky's work is also very spiritual in nature. His earliest abstract works were based on biblical themes. Over the years he worked toward achieving imagery that was not based on objects, imagery that allowed color and shape themselves be the subject of the painting.

Paul Klée, a colleague of Kandinsky at the Bauhaus center from 1922 to 1923, also made use of many of the same geometries. He sought out children's art, primitive art, and the art of the mentally ill in order to create an art he hoped would be the most innocent and pure in nature. His own artwork has a very fantastical and magical feel. The imagery is often based on natural scenes, the changing of the seasons, and plant forms all with metaphorical intent. From it Klée created a sense of spiritual or religious communion. He developed a series of what he called "magic squares," a grid pattern of varying colors and intensities that he returned to repeatedly throughout his artistic career.

Joan Miro is another well-known abstract painter who made use of many of the same forms and patterns. He is often identified with the Surrealist school, having worked closely with artists in that movement. The Surrealists deployed many techniques designed to draw images from the unconscious to the conscious mind. Miro further simplified his imagery in 1924, opting for only the most elemental forms. The geometric forms common to first stage hallucinations can clearly be seen in his work from then on.

While it cannot be assumed that artists, like shamans, are seeking out a hallucinatory state, it is well known that the creative process does engage the creator's brain in what may be considered an altered state of consciousness. Visual artists may be especially able to access the core forms that occur during hallucinations. Another visual source that artists turn to regularly is the natural world. A small number of constant forms have been identified in this arena as well. In his study of the laws of physics that determine physical form, Stevens found that only a limited number of primary shapes were possible. Other investigators have found that economy and efficiency govern physical solutions. Thus the grid or honeycomb pattern develops from the most efficient branching pattern with three, symmetrical, 120 degree junctions as can be seen in a cluster of soap

bubbles or the scales on a turtle's shell. Crystallized compounds or even cracking mud can reveal the ways in which the laws of physics create predictably recurring, albeit complex, forms.

As macroscopic nature follows these physical laws, so too microscopic nature. Perception is bound by and produced under these physical limitations. The geometric patterns of a hallucination created whether by the eye or the brain must be formed under the same constraints. Artists may find them through their visual study of the world around them or through their developed visual intuition. Children draw them as they go through their earliest developmental stages. This reveals the depth to which these geometric shapes are imbedded in our primary psyches. Children, like artists, may have an unmediated intuitive appreciation for these forms just as they are still closer to the fantasies and imaginations formed by their minds. The breadth of the College of Physicians of Philadelphia's Library Collection makes it a unique environment for scholars researching the questions reflected in this summary. During my stay as a Visiting Researcher, I was able to expand my understanding of visual hallucinations by using sources from the neurosciences to medical anthropology. The historical collection also introduced me to an earlier literature on the nature of hallucinations. There are few facilities where a scholar would be able to integrate such a range of material pertinent to an important topic in our cultural as well as medical history.

The Evolution of American Physicians' Attitudes Toward Their Women Patients during the Nineteenth Century

Eric v.d. Luft

During seven days at the College of Physicians of Philadelphia, I was able to consult just under one hundred mostly nineteenth-century publications relevant to my ongoing research on women and medicine. Since 1998 I have presented numerous talks, published five articles, and contributed nine encyclopedia articles about women and medicine. Most of my work in this area had concerned women as physicians, but prior to visiting the College I had begun to study the history of women as patients.

My 1999 Wood Fellowship enabled me to collect information on six aspects of this newer project:

1. *The background of eighteenth-century Anglo-American physicians' attitudes toward women patients*
   Although most of the "manuals for mothers" written in this era evince a condescending tone and although menstruation and other normal functions were consistently regarded as diseases, there existed more differentiation among eighteenth-century physicians' attitudes than one might expect. This can be readily seen in the works of George Cheyne, Henry Manning, and John Leake that form part of the College's historical collection.

2. *The attitude that obstetrics was more valued than gynecology and that women are ruled by their reproductive organs, particularly the uterus*
   Until about 1850 these attitudes dominated the medical view of women. They characterized the practice of Philadelphia obstetrician Charles Delucena Meigs and still exist today, although they declined markedly in the late nineteenth century, partly because of the influence of Fleetwood Churchill and his adherents. Gradually the medical community began to value women as individuals and not just as childbearing vessels.

3. *Hysteria*
   At the beginning of the nineteenth century many gynecological ailments were blamed on hysteria but, by the end of the century, that term had almost vanished from the gynecological literature. Although Cheyne, in his influential early eighteenth-century work on nervous disorders, did not describe hysteria in any gender-specific way and although the cases he cited, including his own, were mostly men, by the end of the eighteenth century hysteria was considered to be almost exclusively a disease of women. The female constitution was supposed to be naturally weak, and therefore susceptible to such trivial maladies as would not affect men. Conditions known as "hysteria," "the vapors," "chlorosis," "furor uterinus," "neurasthenia," "leukorrhea," etc. were used by physicians, fathers, brothers, and husbands throughout the nineteenth century to justify confining women to the domestic sphere. Authors who supported this medical view and social policy included Charles Meigs, Walter Johnson, Hugh Lenox Hodge Sr., and George Rowe. In the late nineteenth

century, the work of Mary Putnam Jacobi, particularly in opposition to S. Weir Mitchell, went far toward discrediting this traditional concept of hysteria.

4. *The "delicacy" issue*
It was widely believed during the nineteenth century that the female pelvic examination was embarrassing or even traumatic for the patient and disgusting for the male doctor. Nearly all gynecological authors of that era address this issue in detail. Most, such as Alexander Skene, urged practitioners to do only what was clinically necessary, without regard for the feelings of the patient. A minority of physicians, such as Henry Macnaughton Jones, motivated by genuine human kindness, made special efforts to ensure that their patients undergoing pelvic exams were as comfortable as possible. Harshly criticizing the roughness of some other physicians, Macnaughton Jones argued that, even beyond the question of human dignity, there were cogent *medical* reasons for being considerate of the patient. Arthur Edis claimed that success in gynecology was not possible unless the physician gained the trust of the patient. Against the spirit of Philip Syng Physick, Henry T. Byford urged listening carefully to the patient's telling of her own troubles. The literature indicates that by the end of the nineteenth century the gynecological community had begun to move in Edis's and Byford's direction.

5. *The demand for and advent of women physicians, especially women gynecologists*
Ann Preston, among others, argued that increasing the numbers of women practitioners could alleviate the "delicacy" problem. The success and experience of the Blackwell sisters, Marie Zakrzewska, Harriot Kesia Hunt, and other early women physicians strongly supports Preston's view.

6. *The dawn of modern gynecology*
We might date the separation of gynecology from obstetrics and its establishment as a separate medical specialty from the work of William Potts Dewees in the 1820s. Others who contributed to this development were James Simpson, Theophilus Parvin, Lawson Tait, Marshall Hall, T. Gaillard Thomas, Thomas Addis Emmet, and Montgomery A. Crockett. Their respective recommendations for how to deal with women reflect a broad diversity of perspectives. Hall and Tait represented extremes in their

attitudes toward patients, with Hall advocating a warm, comforting approach and Tait promoting cold, clinical, compassionless tactics, thus challenging the myth that nineteenth-century physicians imposed a monolithic set of attitudes on their women patients.

I wish to thank Laurie L. Thompson, Director of the SUNY Upstate Health Sciences Library, for granting me professional leave to pursue this project; and, among the College of Physicians staff, especially Charles Greifenstein, Marjorie Smink, Christopher Stanwood, and Gretchen Worden for their assistance, knowledge, and hospitality.

Rethinking Specialization in Comparative Perspective, 1800–1960

George Weisz

My overall research project focuses on the history of medical specialization from 1800 to 1950 in four countries—France, Germany, Britain, and the United States. My research at the College of Physicians and Surgeons in May of 1999 was geared toward completing the American sections of this book. I was also looking for a local perspective to supplement the national material. Philadelphia seemed like an especially appropriate choice since it was one of the American cities in the nineteenth century where specialities were most developed.

The history of medical specialization in the twentieth-century United States has been well documented in the work of Rosemary Stevens; consequently I have been especially interested in the early, formative development of American specialties from the early nineteenth century to the beginning of the twentieth.[1] While at the College, I examined a variety of sources in the wonderful collection but found especially useful a number of medical and city directories and guides as well as several local medical journals. My results are lengthy and complex but they can be briefly summarized as follows:

[1]Rosemary Stevens, *American Medicine and the Public Interest* (New Haven and London: Yale University Press, 1971).

In almost every nation there existed in the eighteenth century a variety of low-prestige "specialists" like hernia and bone setters, oculists, and dentists. But the emergence of modern medical specialties, I would argue, first took place in Paris during the 1830s. Isolated specialists practiced in many large cities during that period, but only in Paris did specialists become a recognized professional category. At its emergence, specialization was primarily understood as a necessity of medical teaching and research (as it was then understood). Specialty practice existed as well but was understood as a secondary phenomenon. It was not until the 1880s that specialty practice became a major issue. Until then, it was the role of specialties in medical education that was usually the key point of contention. Starting in the 1850s, this model of specialization spread to many other countries. The process was complex and painful in Britain, but much less so in German-speaking lands and the United States.

There is no evidence of a significant development of specialization in the United States before 1855. Historical studies of American medicine before the Civil War are almost completely silent on this subject. Several collections of medical biographies, although unrepresentative of the profession as a whole, suggest that elite American medicine was, before about 1855, relatively unspecialized.[2] Philadelphia provided a fairly large proportion of those few individuals mentioned as having a specialty interest. This situation changed rapidly in the following two decades. William Atkinson's work of 1878 provided brief biographical notices of a large number of eminent *living* practitioners.[3] About 20 percent of those profiled were described as having some sort of specialty interest. Atkinson's essays suggest clearly that certain forms of specialization had become accepted and common by the 1870s, but they also confirm that this was a new phenomenon. Most of those described as specialists obtained their M.D. diploma after 1850 and did not necessarily begin practicing as specialists until considerably later.

---

[2]The discussion that follows is based on an examination of Stephen W. Williams, *American Medical Biography: Or Memoirs of Eminent Physicians* (Greenfield, Mass.: L. Merriam & Co., 1845); Samuel David Gross, ed., *Lives of Eminent Physicians and Surgeons of the Nineteenth Century* (Philadelphia: Lindsay and Blakiston, 1861). For further material on the most important medical biographies of the nineteenth century, see the essay "American Medical Biography: A Review of the Seven Books on the Subject," *Medical Review of Reviews* 24 (1918). This essay also appears at the front of Howard Atwood Kelly's *Cyclopedia of American Medical Biography* (Philadelphia and London: W. B. Saunders, 1912), vol. 1.

[3]William Atkinson, *Physicians and Surgeons in the United States* (Philadelphia: Charles Robson, 1878), p. 3.

As in other countries, surgery was a pivotal category because it long pre-existed specialization as a social phenomenon. That is to say that once it became possible to think of medicine as divided into specialties, surgery became the largest and in many ways prototypical specialty. Similarly obstetrics loomed very large in the development of specialist self-consciousness because it had been established as a distinctive medical activity since the eighteenth century and by the nineteenth century possessed in the United States as elsewhere its own lying-in hospitals and Faculty chairs.[4] It was often thought of by its practitioners as the third branch of medicine, a junior partner so to speak of medicine and surgery; but like surgery, it could readily be reconceptualized as a specialty once the idea that medicine was divided into specialties became widely accepted.

Obstetrics traditionally included diseases of women and of young children within its boundaries. But by mid-century gynecology was on its way to splitting off from midwifery and loomed quite large among the budding specialist categories in America. This would continue to be true among Atkinson's subjects who took their M.D. after 1845; more than one-third of those who obtained M.D.s after this date included diseases of women or gynecology among their specialty interests. In many cases this was combined with midwifery but in many others it was not. Similarly in Philadelphia in 1885, nearly 30 percent of those who indicated a specialty in a local medical directory identified themselves with diseases of women.[5] One early twentieth-century historian of medicine saw gynecology as "the first of all modern specialties," by which he referred both to its institutional importance in the United States and, above all, to the vigorously surgical orientation it began to adopt around mid-century.[6]

Although this was not reflected in Atkinson's book, ophthalmology also seems to have constituted an important early specialist category in the United States, motivated by the same combination of scientific and philanthropic impulses that were at work for other specialties. By the 1820s, several American cities had infirmaries, dispensaries, or hospital wards devoted to eye diseases.[7] This early

---

[4]For a brief and useful outline of these developments, see Howard A. Kelly, "History of Obstetrics," in Kelly, *Cyclopedia* (1912), liv–lvii.

[5]*Medical Directory of Philadelphia, Pennsylvania, Delaware, and the Southern Half of New Jersey* (Philadelphia: P. Blakiston, 1885).

[6]Howard A. Kelly, "History of Gynecology in America," in Kelly, *Cyclopedia* (1912), xl.

[7]Harry Friedenwald, "Ophthalmology," Kelly, *Cyclopedia* (1912), xl. William Campbell Posey and Samuel Horton Brown, *The Wills Hospital of Philadelphia* (Philadelphia: J. B. Lippincott, 1931), p. 14.

activity almost certainly reflected widespread familiarity with British medicine, within which a large number of eye hospitals were founded during the first half of the century. The development of eye hospitals was due *not* to the spread of anatomo-pathological and organic perspectives (*pace* George Rosen), which were only beginning to gain acceptance. Early specialists of the eyes were largely claiming activities that had been monopolized by marginal and frequently non-medical practitioners in the eighteenth century. A small number of difficult but frequently successful procedures, notably removal of cataracts, but also lachrymal fistulae, and removal of objects embedded in the eyes, gave specialists specific and difficult activities to perform along with more routine treatment of inflammations and infections by topical and systemic medications. This was particularly important in the context of the English-speaking world, where most hospitals were private philanthropic institutions. Founders could not appeal only on the basis of future advances in medical knowledge; they had to present their activities as immediately beneficial for a significant number of needy. Ophthalmology could make a good case for itself as a means of combatting blindness. Thus the appeal to the public in 1823 of George McClellan's unsuccessful Hospital for Diseases of the Eye and Ear in Philadelphia argued that in London and Vienna, "Thousands have been annually relieved and cured of diseases of the eye and ear, who otherwise would have lost the use of these all important organs and proved a burden to themselves and to society."[8] This did not, however, preclude efforts to advance knowledge. Isaac Hays published regular reports on Philadelphia's Wills Hospital (where he had an appointment) in his journal, the *American Journal of Medical Science*. "It is unquestionably in such institutions that these diseases can be studied with most advantage, and we hope in these reports especially should our colleagues unite in the plan, that most of the forms of the disease to which the eye is subject will eventually be illustrated."[9] After 1850, following the invention of the ophthalmoscope in 1851 and the publication of Donder's work on refraction, ophthalmological clinics in Vienna began attracting many medical doctors and the field emerged with especially high intellectual stature.[10] It also produced one of the earliest specialist societies in the United States in 1864.

---

[8]Posey and Brown, p. 18.

[9]Posey and Brown, p. 61.

[10]Thomas Neville Bonner, *American Doctors and German Universities: A Chapter in International Relations* (Lincoln: University of Nebraska Press, 1963), pp. 89–90.

Finally, it is worth noting that in the United States as elsewhere the spread of lunatic asylums provided the institutional foundations for the relatively early visibility of psychiatry. However, the fact that we identify so many of these practitioners in terms of institutional appointments and publications rather than specific references to special interest in the diseases of the insane suggests that its early practitioners saw themselves as physicians working in special institutions rather than as specialists in the modern mode.

After 1875 specialist and hospital and teaching posts developed rapidly in Philadelphia as in other American cities. There is no space here for details so I will merely note that one of the factors in this spread was the relative openness of medical education, which made it easy to establish medical schools. Specialists had more in the way of teaching opportunities and hospital posts than their European colleagues. In the intense competition among schools for students, the integration of specialist teaching likely constituted a potential advantage. What is striking about the case of Philadelphia is not just the speed with which specialists spread into medical institutions from 1878 to 1888 but the integration of these specialists within the medical elite, even if appointments in the older "establishment" institutions were not the most senior ones. Multiple affiliations were common. The dermatologist Louis Duhring held appointments at the University of Pennsylvania and the Philadelphia Hospital, and was a lecturer at Woman's Medical College and consultant in charge of skin diseases at Howard Dispensary. The laryngologist J. Solis-Cohen was honorary professor at Jefferson, Physician at the German Hospital, and Professor at the Polyclinic.

Little wonder that claiming a specialty was beginning to have a certain cachet and popularity. Philadelphia was one of the first, if not *the* first, American city to produce a medical directory that included specialty designations in its listings, in spite of the strictures of the AMA against this practice. Approximately 13 percent of those listed in 1885 mentioned specialty interests. Even the venerable College of Physicians of Philadelphia could not resist the pressure and in 1892 allowed for the creation of specialty sections, in spite of substantial opposition to institutional fragmentation.[11]

---

[11]Whitfield J. Bell, *The College of Physicians of Philadelphia: A Bicentennial History* (Canton, MA: Science History Publications, 1987), pp. 187–189; W. B. McDaniel, "Recognition of the Specialties," in "Organic Law" of the College of Physicians of Philadelphia (unpublished ms, cpp cage 210a4).

Pictures of Episcopal Hospital, Philadelphia, PA: Part I (1851–1926)

Adam W. Ellis, David Levien, Marita Krivda

The merit of images, often posed, often retouched, as historical documents has been debated by numerous scholars.[1] *Nonetheless, portraits, illustrations, and photographs form one of the more delightful avenues for recapturing elements of medical care as it was practiced in the past. Part one of this two-part photo-essay records the first cycles of growth and contraction that characterized the history of one of Philadelphia's foremost medical institutions: The Hospital of the Protestant Episcopal Church of Philadelphia.*

---

[1]Becker, Howard S., "Do Pictures Tell the Truth?" *Afterimage* (1978), pp. 9–13.

Burns, Stanley, "Early Medical Photography in America," New York: Burns Archive, 1983.

Davidson, James Lyle and Lytle, Mark Hamilton. *After the Fact: The Art of Historical Detection*. New York: Knopf, 1982.

Dowdall, George and Janet Golden, "Photographs as Data: An Analysis of Images from a Mental Hospital," *Qualitative Sociology* 12 (1989), pp. 183–213.

Fox, Daniel M. and Christopher Lawrence. *Photographing Medicine: Images and Power in Britain and America Since 1840*. Wesport, CT: Greenwood Press, 1988.

Fox, Daniel M. and James S. Terry, "Photography and the Self Image of American Physicians," *Bulletin of the History of Medicine* 52 (1978), pp. 435–457.

Harris, Neil, "Iconography and Intellectual History: The Half-Tone Effect," pp. 196–211, in John Higham and Paul K. Conkin, eds. *New Directions in American Intellectual History*. Baltimore: Johns Hopkins, 1979.

Jenkins, Reese V. *Images and Enterprise: Technology and the American Photographic Industry, 1839–1925*. Baltimore: Johns Hopkins Press, 1975.

Trachtenberg, Alan. *Reading American Photographs: Images as History, Mathew Brady to Walker Evans*. New York: Hill and Wang, 1989.

Wagner, Jon, ed. *Images of Information: Still Photography in the Social Sciences*. Beverly Hills, CA: Sage, 1979.

Beginnings

In 1850 Philadelphia's 300,000 residents constituted the second largest city in the United States. The outskirts of the municipality had expanded rapidly during the first part of the nineteenth century. Many of the newcomers were laborers attracted by jobs in shipbuilding, locomotive construction, and the other local industries that had been stimulated by the discovery of coal deposits in the nearby Allegheny mountains. Contagious diseases and occupational injuries multiplied in this rapidly industrializing environment. In 1851 a Philadelphia physician named Caspar Morris (1803–1881) brought the consistently unmet health needs of the city's poorer inhabitants to the attention of the Episcopal diocese. For several years Morris had attended meetings initiated by the Episcopal Bishop of Pennsylvania, the Rt. Reverend Alonzo Potter, meetings at which prominent church members discussed the needs of the diocese. It was to this group that Morris first suggested increasing the number of facilities that could and would care for Philadelphia's poorer residents when they fell sick.

In the years before the introduction of antiseptic surgery, anesthesia, or even parenteral rehydration, there were fewer benefits from staying in a hospital and considerable chance of acquiring an untreatable nosocommial infection. While wealthy people paid their servants to care for them and physicians to visit them, poorer patients were often unable to afford such assistance. Moreover, the loss of income that accompanied illness often pushed urban wage earners out of their rented homes and made them unable to provide food for themselves. Concern for this class of medical indigents, particularly if they had been working previously, had been an important factor in favor of establishing Pennsylvania Hospital one hundred years before. As Morris noted, however, the needs of the poor sick had long ago outstripped the facilities at both Pennsylvania Hospital and the medical department of the Almshouse.[2] Morris, who published a formal version of his assessment as an "Appeal on Behalf of the Sick," retained a life-long interest in hospital services as evidenced by his authorship of *Hospital Construction and Organization* twenty-five years later. With the support of Bishop Potter, Morris's 1851

[2]Visiting physicians provided care for inmates of the Philadelphia Almshouse during the eighteenth century. The entire institution was renamed Philadelphia Hospital in 1835 and later Philadelphia General Hospital.

Figure 1. Caspar Morris (1803–1881)

pamphlet, "Appeal on Behalf of the Sick," initiated a major campaign to establish a new facility.

A charter for a new hospital was approved on July 18, 1851 and fundraising for the new institution began in earnest. A nationally popular entertainer, the Swedish singer Jenny Lind, is thought to have been an early contributor. Soon larger gifts from Philadelphia's wealthier Episcopalians were being matched by funds from the community as local ministers began encouraging donations at Sunday services. Then, in March of 1852, the daughters of a recently deceased lawyer, John Leamy, offered five acres that had been part of

their father's estate. Located in the Kensington neighborhood, the property included a large summer residence as well as additional smaller structures. Controversy elicited by the initially rural location of the property was resolved by the observation that rapid urban expansion had already brought water, gas service, and paved streets to the area. At the same time, the Kensington neighborhood was still free of the "pestilential exhalations" associated with the city's congested center. Renovations were performed on the building and a total of twenty-two physicians, surgeons, and obstetricians were appointed to the Medical Staff, with Herman Robinett, M.D. serving as House Resident and Acting Superintendent. Opening ceremonies were held on December 11, 1851. By then $54,000 had been raised (nearly two-thirds in the form of gifts of $1,000) and an adjacent plot was purchased for $10,000, creating a tract bounded by Front, Lehigh, Huntington, and B streets.

Two weeks after the opening ceremonies, on Christmas Eve no less, three children and the husband of a woman who had died of typhus became the first patients admitted to the new hospital. As was common at the time, they did not turn to the hospital for diagnosis and treatment but rather they came as a last resort when they

Figure 2. Painting of Leamy House

had exceeded their ability to care for themselves at home. Similar hardships afflicted other people. During the first year it was open, the hospital's staff treated seventy-eight medical patients and one hundred surgical patients. One year later the number had doubled to three hundred in-patients and an additional 998 seen as "out-side patients." The financial panic of 1857 increased the number of applications for admissions. An additional building was renovated to provide the needed space.

As early as 1848 Caspar Morris had already proposed a subscription plan by which people could pay a small weekly fee toward future hospital care. Ten cents a week guaranteed three weeks of hospital care, while ten dollars bought the donor or someone they designated care for twice as long as the donation would have paid for otherwise. Those who donated $1,000 were entitled to have one patient constantly in the hospital and a $10,000 donation supported five patients. In 1864, however, the base rate was recalculated from $2.50 to $5.08 per week. In the meantime total costs of operations for the hospital increased from $3,600 in 1853 to $22,000 in 1864.

Despite rising costs nearly $100,000 had been raised by 1860 and it became possible to consider the construction of a permanent building especially designed to house the Episcopal Hospital of Philadelphia. The architect Samuel Sloan submitted a proposal that was accepted. The floor plan was inspired by the Hôpital Lariboisiere in Paris (known for its parallel pavilions). The exterior promoted a Norman style.

Figure 3. Architect's rendering for Episcopal Hospital

Ground for the West wing was broken in 1860 and construction was nearing completion when the Civil War erupted. At the request of Surgeon General for the U.S. Army William Hammond, the hospital began accepting Union soldiers as patients in the new West wing. These patients had been injured in the field and only roughly cared for after being picked up by Confederate forces. Now part of a prisoner exchange, many must have been surprised by the facilities of the newly opened hospital. Episcopal ultimately provided care for over seven hundred Union soldiers, with nearly ninety percent able to return to their companies or to their homes. No longer needed for overflow military care after the Union government expanded its other hospital facilities, Episcopal returned to admitting exclusively civilian patients in March 1863. Initially the majority of patients belonged to the Episcopal Church, but the facility always accepted members of all faiths and by 1865 less than one-third were Episcopalian. The chapel erected on the grounds in 1859, however, served as a centrally placed reminder of the institution's religious affiliation.

Over $165,000 had been spent on the West wing of Episcopal Hospital's new home but more funding was sought for completion of the East wing already under construction. After the Civil War the hospital was able to obtain donations from some of the larger com-

Figure 4. Photograph of West Wing and Chapel

panies in the area (Lehigh R.R., Reading R.R., and others) whose employees were often treated at the Kensington facility. The State legislature also provided an additional $55,000 in 1864 and 1865. By 1866 the hospital was treating over nine hundred in-patients annually, with over 6,000 outpatients—many victims of industrial accidents seen through the "Outside Department," a forerunner of the contemporary E.R. In 1868 $30,000 was collected for a ward for incurables but fund raising for completion of the East wing was delayed by the financial panic of 1873. In fact, the Hospital was obliged to use $14,535 of the Episcopal diocese's Thanksgiving collections in 1872 because operating costs exceeded $48,000 for that year.

The recovering economy of the late nineteenth century and the dramatic improvements in medical outcomes following the acceptance of the germ theory of disease ushered in an era of expansion for Episcopal Hospital. In 1877 the hospital had 130 beds and had treated 1,387 in-patients and 12,229 patients through the Dispensary, for a total of 25,163 visits that year. In 1882 the Dispensary was still seeing patients gratis, recording 36,500 visits, after the Board rejected the possibility of collecting income from these patients by charging for medicine. Fund raising among local businesses and industries was vigorously pursued during the 1880s, often prodded along by reference to the large number of industrial accidents cared for by the hospital. Nonetheless, in 1881 the Board recognized a new need for private rooms for patients who "shrink from contact with other patients and from publicity."

School of Nursing

Initially, male nurses tended to the patients at the Episcopal Hospital of Philadelphia, but the Civil War brought with it female nurses, two of whom stayed on. An attempt to hire additional help under the guise of pupils failed when these assistants were fired for laziness and insubordination. In 1887 the Board of Managers decided to institute female nursing in all the wards and to open a school of nursing. Almira Davis, a graduate of the highly respected Bellevue School of Nursing in New York, was appointed as Directress of Nurses. One hundred applicants were reviewed and thirty-five were accepted, but nine of these were eliminated during a one-month probationary period during which their penmanship, ability to read aloud, and do simple accounts was observed. Of the remaining

Figure 5. Photograph of first class to graduate from the School of Nursing

twenty-six, eleven graduated in May of 1890 after in-patient, Dispensary, and kitchen rotations their first year, followed by home nursing in the second year. The income from their private nursing work during the second year went to the Hospital. In addition to training, room, and board, the nurses received $8 a month the first year and $10 the second. Despite long working hours, student nurses were expected to get eight hours of sleep and to afford no excuse for sleepiness. 1899 Harriet, Anna, and Marie Blanchard gave money for a Nurses' Residence for seventy students. Subsequent generations of nursing students lived, learned, and played on the hospital's campus, simulating to some extent the "total institution" described by the sociologist Irving Goffman.

Numerous improvements continued to be made during the final two decades of the nineteenth century. In 1887 improved steam heat was installed. In 1894 the hospital acquired an electric lighting plant and in 1895 an intrahospital telephone. The old Leamy mansion was razed and several new structures were erected, including the Ingersoll building in 1894.

In addition to a "receiving ward" or emergency bay for men and one for women, Ingersoll House would ultimately house new operating, etherizing, and recovery facilities as well as forty-three long-term beds and the hospital's radiology facilities for several decades. Expansion came at a cost, however, and in 1901 Bishop Whitaker had to announce that poor returns on investments had not only

Figure 6. Tennis Courts on the grounds of Episcopal Hospital being used by nursing students

Figure 7. Photograph of Ingersoll House

resulted in a continued deficit of $30,000 but would make the institution dependent on liberal donations of undesignated money. External circumstances exacerbated the situation when a major typhoid epidemic brought an additional 141 patients into the hospital in 1906, challenging the hospital's commitment not to refuse care to those in need.

In 1913 an automobile was used for the first time to bring accident victims to the hospital. Four of the twelve brought in that year were adults, the other eight were children who had been injured by cars!

Financial pressures continued to affect the hospital and, in 1914, forty percent of available beds had to be closed because expenses exceeded $300,000 and income from endowments was providing less than one-third of that sum, with outside donations amounting to less than $25,000. "Philadelphia's charity is known to the ends of the earth, but of the late years it has been concerned more with the ends of the earth than with the needs of its own people," commented a local leader.

During the polio epidemic of 1916, Philadelphia's Director of Public Health and Charities asked the hospital for forty beds in a

Figure 8. Photograph of ambulances used by Episcopal Hospital

previously closed ward, with the cost to be borne by the Emergency Aid of Pennsylvania. The hospital had already been doing work with disabled children and was proud of the fact that there were no deaths among their polio patients and that many of them benefited from early orthopedic treatment.

In 1917, 283 doctors and nurses from Episcopal Hospital joined one of the first United States base hospitals, No. 34. Major Astley P.C. Ashurst was appointed as the Medical Director and Major

Figure 9. Photograph of Base Hospital No. 34

Emory Alexander served as Surgical Director. The majority of Episcopal's representatives ultimately ended up at the American Hospital in Nantes until their unit was demobilized in April of 1919. In the meantime, Episcopal had to reopen closed beds at its Philadelphia facility in response to the influenza epidemic of 1918, when the census rose from 260 to 450 virtually overnight.

After WWI, operating costs continued to rise exponentially, but now patients were paying privately for nearly forty percent of the hospital's services. The value of Episcopal's services was reinforced in 1921 when the hospital received the highest classification from the American College of Surgeons and the State Board of Medical Education and Licensure. The hospital's increasing ability to attract more affluent patients led to an expansion of private rooms that made it possible to care for 593 private patients in 1925 and 856 by 1926. That year Episcopal Hospital was able to celebrate its seventy-fifth anniversary with a gala dinner at the Penn Athletic Club following a day-long open house at the hospital.

Note: All illustrations are from the Archives of Episcopal Hospital of Philadelphia.

Victor Satinsky (1912–1997) and the Success of His Partially Occluding Vascular Clamp

Marc D. Eisen and Kenneth L. Brayman

The expansion of surgical solutions over the past one hundred and fifty years has often required the courageous application of new techniques and approaches. Historical reevaluation of specific innovations allows us to understand the conditions and circumstances that determined success or, in some cases, failure. The opportunity to collect personal information from individual innovators greatly enhances this process by permitting the inclusion of psychological, philosophical, and biographical factors. The following discussion of the partially occluding vascular clamp introduced by Victor Satinsky (1912–1997) over fifty years ago seeks to understand the mixture of personal and institutional traits that allowed one surgeon to exert enduring influence over the practice of his craft.

Victor Paul Satinsky was born in 1912 in Philadelphia to David Satinsky and Anna Purcell Satinsky (Figure 1). Victor's father, David Satinsky, had immigrated from Russia to the United States, joining other family members who had already settled in Philadelphia.[1] Most male members of this family worked as kosher butchers, especially during the early part of the century. David, however, did not enter the family business. Instead he pursued entrepreneurial ventures in the emerging markets of the World War I era, investing in movie houses and textile plants.

Both David and Anna Satinsky died when Victor was six years old. Anna died from influenza during the infamous epidemic of 1918. David suffered from hypertension and kidney failure, but the exact cause of his death six months after his wife's is not clear.[2] After their parents' deaths, Victor and his five siblings moved into the adjacent homes of two uncles who had numerous children of their own.

---

[1]Victor Satinsky, interview with M.D.E., February 16, 1996.
[2]Morris Satinsky, interview with M.D.E., April 8, 1998.

Figure 1. A young Victor Satinsky with his parents, David and Anna Purcell, and sister Rose circa 1915 in Philadelphia. Victor appears on his father's knee, while his mother holds his sister Rose (courtesy of Helen Satinsky Splaver).

Victor grew up in a household of nineteen and remained close to his siblings and cousins throughout his life.[3]

Although the Depression undoubtedly affected the Satinsky households, Victor was still able to begin undergraduate studies at the University of Pennsylvania in the fall of 1930. He had no specific career path in mind and later recalled enjoying every subject he studied, particularly creative writing and the sciences.[4] Swimming was his primary extracurricular activity and he lettered as a member of the varsity swimming team.

As the Depression persisted, Satinsky and some of his classmates tried to save money by graduating in three and one half years instead of the traditional four. Despite his broad interests, Satinsky had to declare a major. He followed the advice of an uncle who urged him to study medicine. Satinsky had already taken many of the requirements for medical school, and his uncle believed that medical practice would provide a stable income even in an uncertain economy. Satinsky applied for admission to the University of Pennsylvania School of Medicine and Thomas Jefferson Medical College. Waitlisted by Penn, he began his studies at Jefferson Medical College in September of 1934.

After graduating from medical school in 1938 (Figure 2), Satinsky accepted a general internship at Mt. Sinai Hospital in Philadelphia (later renamed the Southern Division of the Albert Einstein Medical Center). The following year he began pursuing an emerging interest in surgery by working as a house surgeon with Harry Koster, M.D. at Crown Heights Hospital in Brooklyn, New York. In 1941 Satinsky returned to Mt. Sinai for two additional years of training as a surgical resident. Satinsky credited most of his basic surgical skills to Koster, often emphasizing the latter's efficiency of movement during surgery.[5]

Satinsky entered the Armed Forces in 1943 as a lieutenant in the 34th General Hospital Division, stationed in England (Figure 3). Satinsky's primary duty was to assist Lieutenant Colonel William B. Schaefer, M.D. in surgery. Three weeks after D-Day, Lt. Col. Schaefer opened the chest of a wounded soldier in an attempt to remove a piece of shrapnel lodged in the chest. After an unsuccessful search for the foreign body, the colonel was prepared to abandon the procedure and close the chest. Satinsky urged the colonel to proceed, as

---

[3]Victor Satinsky, interview with M.D.E., February 16, 1996.
[4]Ibid.
[5]Ibid.

Figure 2. Victor Satinsky as a graduating medical student at Thomas Jefferson University, 1938 (courtesy of Thomas Jefferson University Archives, Philadelphia, PA).

Figure 3. Photograph of Satinsky as lieutenant in the 34th General Hospital Division of the Army, circa 1943 (courtesy of Helen Satinsky Splaver).

he could see shrapnel discretely lodged in the wall of the soldier's heart.[6] Schaefer and Satinsky removed the fragment successfully and the patient made a complete recovery.[7] According to Satinsky, this seminal event sparked his interest in the nascent field of cardiothoracic surgery.

After completing his tour of duty in the Armed Forces, Satinsky looked for an attending surgical position in Philadelphia. He was offered a position at the Hospital of the University of Pennsylvania by then Chairman of Surgery I.S. Ravdin. Satinsky declined the offer, however, as he was worried that the position at Penn would not offer him enough practical operating experience. Satinsky heard from his friend, William Likoff, M.D. (1912–1987), a cardiologist at Hahnemann, that the chief of thoracic surgery at Hahnemann, Charles

[6]Ibid.

[7]W. B. Schaefer and V. P. Satinsky, "Removal of shell fragment from the left ventricle of the heart," *Archives of Surgery* 53 (1946), pp. 13–23.

Philamore Bailey (1910–1993), was interested in developing a program in heart surgery. Bailey had been experimenting with surgical treatments of mitral stenosis.[8] Satinsky introduced himself to Bailey and expressed his interest in the then uncharted field of heart surgery. Bailey responded warmly and offered Satinsky a position as a member of his staff at Hahnemann Medical College and Hospital.

Retrospective evaluation of Bailey's career suggests that he consistently promoted surgical innovation at Hahnemann. When members of his department proposed new ideas he invariably told them to "Go do it!"[9] It was while working in this environment that Satinsky was able to make a large number of contributions to modern surgery (see tables 1 and 2).

One of these contributions is the vascular clamp that bears Satinsky's name. It was developed to facilitate the surgical management of portal hypertension, a condition that develops when a diseased liver impedes the normal return of blood flow from abdominal organs toward the heart. As early as 1877, Nicolai Vladimirovich Eck (1847–1908) had proposed a shunt procedure that would allow blood from the gut to bypass the diseased liver by flowing directly into the general circulation through the inferior vena cava.[10] An anastomotic diversion from the portal vein to the inferior vena cava thus became known as an Eck fistula.

Because blocking the vena caval blood flow carries a high risk of kidney failure, the technical challenge of the proposed Eck fistula lay in creating a permanent anastomosis without arresting caval blood flow. By 1901, the Swiss surgeon and Nobel Laureate Theodore Kocher (1841–1917) had met this challenge by devising an elaborate technique that depended on suturing the two vessels together with two rows of ties and then pulling a blade between the two rows to open the anastomosis.[11] The Eck fistula was limited by the difficulty of isolating portions of the vessel walls from blood flow during construction of the anastomosis.

---

[8]J. C. Davila, "The birth of intracardiac surgery: A semicentennial tribute (June 10, 1948–1998)," *Annals of Thoracic Surgery* 65 (1998), pp. 1809–1820.

[9]Victor P. Satinsky, "The history of the Cardiovascular Institute of the Hahnemann Medical College and Hospital," transcribed interview, April 10, 1981. Allegheny University of the Health Sciences and Hahnemann University Archives Collection, Philadelphia, PA.

[10]N. V. Von Eck, "The ligature of the portal vein, preliminary communication," *Vyenno-Med Journal* 130 (1877): section 2.

[11]John F. Fulton, *Harvey Cushing, A Biography* (Springfield, IL: Charles C. Thomas, 1946).

The challenge of achieving partial occlusion of a major vessel attracted the attention of several European surgeons. In 1907 Friedrich Trendelenburg (1844–1924), Professor of Surgery at the University of Leipzig, is thought to have applied the first partially occluding, or tangential, vascular clamp to the pulmonary artery while attempting to excise a pulmonary embolus.[12] His procedure was successfully employed on experimental animals but was not effective in human patients until 1923, when a German surgeon, Martin Kirschner, used the clamp Trendelenburg had described in order to remove a clot from a patient's pulmonary artery.[13, 14] In 1925 a German colleague of Kirschner's, Arthur W. Meyer, modified the angle of the clamp and used it to perform numerous successful pulmonary embolectomies.[15] The clamp he modified became widely used for this procedure.[16]

Nicolai Guleke (1878–1958) had also described a partial occlusion clamp specifically for use on the ascending aorta. This clamp had finger holes and a ratcheting closure mechanism.[17] A similar design was displayed but not described in Charles Guthrie's *Blood Vessel Surgery*, where it was attributed to Joani.[18] Two years earlier George N. Stewart, a colleague of George Crile at Case Western Reserve University, had introduced an alternative design that did not have finger holes or a ratchet closure mechanism.[19] Stewart's design had several disadvantages. Its use required laborious dissection and

---

[12]M. Sachs, M. Auth, and A. Encke, "Historical development of surgical instruments exemplified by hemostatic forceps," *World Journal of Surgery* 22 (1998), pp. 499–504.

[13]M. Kirschner, "Ein durch die Trendelenburgsche operation geheiter Fall von Embolie der Art. pulmonalis," *Archiv fur Klinischen Chirurgie* 152 (1928), p. 101. Martin Kirschner (1879–1942), a German surgeon who was a pupil of Trendelenburg, is also credited with developing the Kirschner-wire, or K-wire, that is used to stabilize fractures.

[14]A. Encke and M. Sachs, "Die pulmonale embolektomie nack Trendelenburg bei massiver lungenembolie," in *Friedrich Trendelenburg (1844–1924)*, ed. C. Schwokowski (Darmstadt: Steinkopff, 1994), 47–57 as quoted in Sachs, Auth, and Encke, p. 502.

[15]A. W. Meyer, "Erfolgreiche operation der Arteria pulmonalis," *Archiv fur Klinischen Chirurgie* 148 (1927), p. 313 as cited in Sachs, Auth, and Encke, p. 502. A. W. Meyer, "The operative treatment of embolism of the lungs," *Surgery, Gynecology, and Obstetrics* 50 (1930), p. 891.

[16]Sachs, Auth, and Encke, pp. 499–504.

[17]E. Jeger, *Die Chirurgie der Blutgefasse und des Herzens* (Berlin: Verlag von August Hirshwald, 1913).

[18]C. C. Guthrie, *Blood Vessel Surgery and Its Applications* (New York: Longmans, Green & Co., 1912).

[19]G. N. Stewart, "A clamp for isolating a portion of the lumen of a blood-vessel without stopping the circulation through the vessel," *JAMA* 55 (1910), pp. 647–649.

isolation of the vessel. Moreover, the absence of a rubber coating subjected the vessels to additional injury.[20]

Ernst Jeger (1884–1915), an Austrian surgeon at Tübingen, had actually designed clamps for the specific purpose of facilitating a portal caval, or Eck, fistula.[21] Originally, Jeger used two straight, rubber-coated clamps in order to occlude portions of the vena cava and portal vein tangentially. When this method proved cumbersome and time consuming, Jeger improved the method by designing a three-pronged clamp that held the two vessels in apposition.[22] Despite these improvements in the technical aspects of the Eck fistula, Jeger and other surgeons who attempted the procedure during the first decade of the twentieth century, primarily on dogs, typically had very poor outcomes. As a result, interest in the Eck fistula waned.

In 1945, however, Allan O. Whipple, Arthur H. Blakemore, and Jere W. Lord, Jr. of New York restimulated interest in the portacaval anastomosis by publishing a number of reports documenting the success of this procedure for the treatment of portal hypertension. Although the outcomes achieved by these surgeons surpassed previous attempts, the operations were long and painstaking, often requiring over eight hours to complete.

Satinsky recognized the difficulty of the operation and identified a number of areas for improvement. The abdominal approach that was generally used required manipulation of the intestines and resulted in a deep and bloody operative field. Moreover, the hepatic artery and the biliary structures obstructed exposure of the portal vein. Satinsky suggested that a thoracoabdominal approach might alleviate many of these problems. In 1947, he proposed the idea to Bailey, who responded enthusiastically but was unable to provide the experimental animal facilities required in order to pursue the project. Satinsky ultimately convinced Hahnemann physiologist Dr. John Scott to allow him access to the animal facilities of the Physiology Department on Saturdays when students were absent. That year Satinsky and a nurse operated on six dogs in the physiology lab on Saturday afternoons, performing the preparation, surgery, and cleanup by themselves.[23] The results were promising. On January

---

[20]Jeger, *Die Chirurgie der Blutgefasse und des Herzens.*
[21]Ibid.
[22]Ibid.
[23]Victor Satinsky, "The history of the Cardiovascular Institute of the Hahnemann Medical College and Hospital," transcribed interview, April 10, 1981, Philadelphia, PA. Allegheny University of the Health Sciences and Hahnemann University Archives Collection, Philadelphia, PA.

28, 1948, a patient of Dr. Likoff's presented with cirrhosis, ruptured esophageal varices, and ascites—unstable but suited for portacaval decompression. Satinsky created a portal caval shunt using a thoracoabdominal approach and the patient did well. Three more patients received this procedure during the ensuing months and by 1950 Satinsky was able to publish a case series in the *Journal of Thoracic Surgery*.[24] Satinsky believed that a thoracoabdominal approach afforded a more advantageous disposition of the portal triad in the surgical field. With the patient turned on his left side, the hepatic artery and hepatic duct no longer obscure the surgeon's view of the portal vein, rendering the portal vein much more accessible. This more direct approach reduced the operating time needed for portacaval surgery.

Satinsky, unaware of the existing tangentially occluding clamps described in the German literature, designed one of his own to be used for portal caval shunt surgery. He designed a clamp with a generous curve and noncrushing jaws that occluded only the anteromedial portion of the vena cava. A drawing of the clamp was included in Satinsky's 1950 report of his portal-caval shunt procedure. (Figure 4) Satinsky also designed a curved scissors that was used to incise the isolated portion of the vena cava. The clamp and scissors proved quite useful for the portacaval anastomosis. Satinsky approached Philadelphia instrument maker George Pilling and Sons Company with his design, hoping that the instruments could be manufactured for widespread use.[25] A Pilling catalogue entry from 1948 depicts the original Satinsky clamp. (Figure 5) The Pilling Satinsky clamp was not used in the first case of transthoracic thoracoabdominal portal caval anastomosis because it was still being manufactured when the patient presented acutely and required surgery. A kidney clamp was used instead.[26]

According to Satinsky, his motivation for approaching the instrument maker was to make the clamp available to other surgeons.[27] Elite physicians and scientists did not typically apply for patents for their innovations during this period. Patented medicine and equipment was still seen as the purview of a less respected tier of practitioners, the heirs of nineteenth-century snake-oil salesmen.

---

[24]V. P. Satinsky, H. P. R. Ramirez, and L. Gilbert, "Transthoracic, thoraco-abdominal approach for portacaval shunt," *Journal of Thoracic Surgery* 20 (1950), pp. 272–288.
[25]Now Pilling Weck Surgical, a Teleflex company.
[26]Satinsky, interview with M.D.E., February 16, 1996.
[27]Ibid.

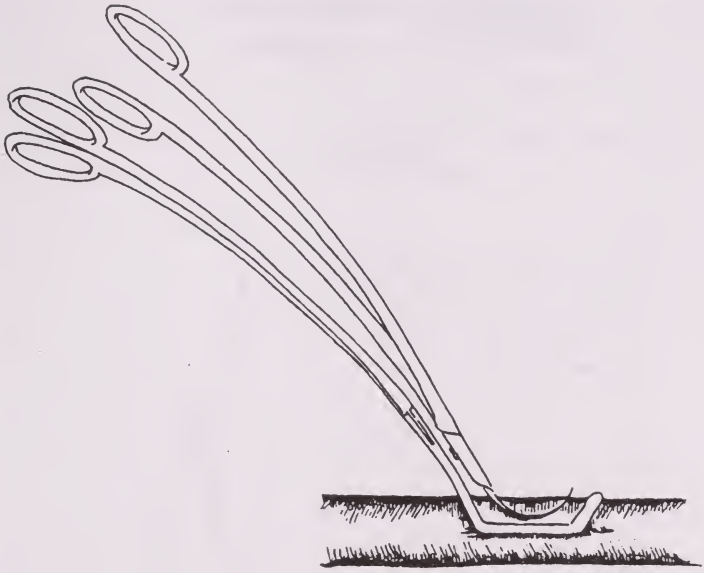
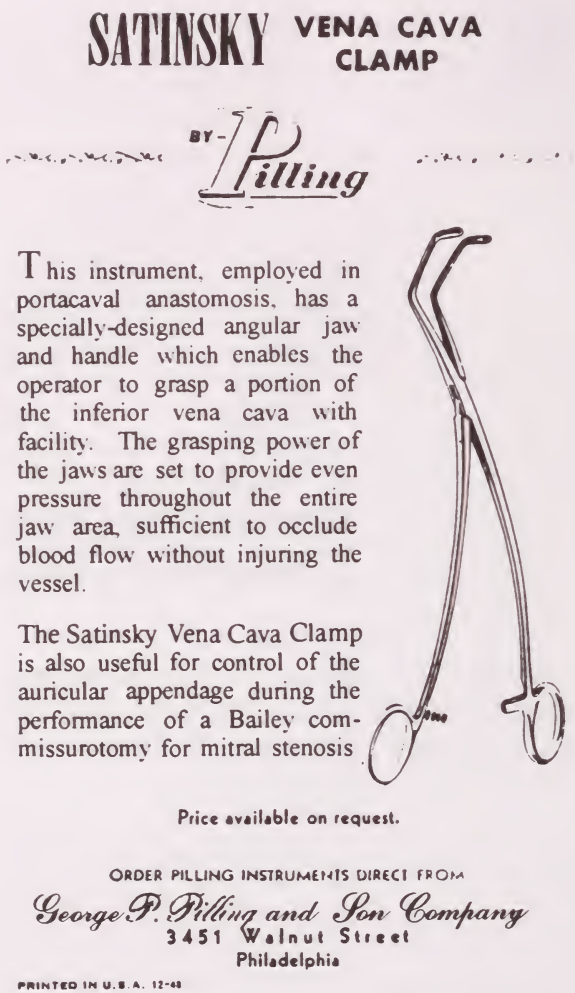


Figure 4. This figure from the Journal of Thoracic Surgery article on the transthoracic thoracoabdominal approach described the Satinsky clamp and scissors that was used for portacaval anastomosis (courtesy Mosby Yearbook, Inc.).

Pharmaceutical companies and medical equipment manufacturers were beginning to secure patents but apparently the cost of pursuing a patent was not warranted in Mr. Pilling's view. Pilling initially considered the clamp's development important as a specialized instrument for an experimental procedure but did not anticipate widespread use.[28] As no patent was ever pursued, no restrictions were ever placed on production of the clamp.[29] Not surprisingly, the overall design of the clamp was used subsequently by many other manufacturers. However, the clamp and scissors retained Satinsky's name and the eponym has occasionally been extended to describe other partially occluding vascular clamps.

The Satinsky clamp gained widespread popularity as its utility in a variety of surgical endeavors became obvious. Charles Bailey,

[28]W. Pilling, conversation with M.D.E., July 15, 1998.
[29]Satinsky, interview with M.D.E., February, 16, 1996.


SATINSKY VENA CAVA CLAMP

BY Pilling

This instrument, employed in portacaval anastomosis, has a specially-designed angular jaw and handle which enables the operator to grasp a portion of the inferior vena cava with facility. The grasping power of the jaws are set to provide even pressure throughout the entire jaw area, sufficient to occlude blood flow without injuring the vessel.

The Satinsky Vena Cava Clamp is also useful for control of the auricular appendage during the performance of a Bailey commissurotomy for mitral stenosis.

Price available on request.

ORDER PILLING INSTRUMENTS DIRECT FROM

George P. Pilling and Son Company
3451 Walnut Street
Philadelphia

PRINTED IN U.S.A. 12-48

Figure 5. Entry from the 1948 George Pilling & Son Company catalogue, the year the Satinsky clamp was introduced (reprinted by permission of Pilling Weck Surgical).

M.D., Satinsky's aforementioned mentor and colleague, used the clamp in the treatment of mitral valve stenosis. Bailey had performed the first successful intracardiac operation, a mitral commissurotomy, on June 10, 1948.[30] Working with Satinsky, Bailey discovered that the Satinsky clamp was ideal for occluding the atrial appendage so

[30]Davila, "The birth of intracardiac surgery: A semicentennial tribute (June 10, 1948–1998)," pp. 1809–1820.

that the tip of the appendage could be incised and a purse string stitch placed around the appendage. Bailey then released the clamp while inserting his index finger through the appendage toward the mitral valve. A finger fracture commissurotomy was then made with the blade attached to the index finger. In many cases, commissurotomy restored nearly normal mobility to the fused valve and avoided mitral regurgitation.[31] Robert E. Gross, M.D. (1905–1988) of Boston used Satinsky's clamp to repair coarctation of the aorta and reported his results in a series of 100 such patients in 1950.[32] Mark M. Ravitch, M.D. at the Johns Hopkins University School of Medicine told Satinsky that he used the clamp to occlude the bronchus during pneumonectomy.[33] Since the clamp was originally designed for use on the vena cava, its criss-crossed jaw pattern was best suited for the wall thickness of a vein. As the clamp's use expanded to include thicker-walled arteries and bronchi, more appropriate jaw patterns were made available. During the 1950s Pilling equipped the "standard" Satinsky clamp with its patented Atraugrip® jaw pattern.[34] In contrast to the criss-crossed serration of the first Satinsky clamps, this jaw pattern contained a single row of serrated teeth opposing a double row. These jaws, standard on Satinsky clamps today, are well suited for use on arteries.

Minor alterations in the angles and the lengths of the clamp's neck and jaws have been made over the past fifty years. These alterations have been associated with the renown surgeons who utilized them—Denton Cooley, Michael Debakey, Charles Bailey, Claude Beck, and Michael Derra.[35] As the clamp achieved widespread application, various sizes of the instrument were also manufactured, including a smaller pediatric version (Figure 6). Fifty years after its introduction, the original Satinsky clamp and its "progeny" remain among the most versatile and widely used vascular surgical instruments. The longevity of the Satinsky clamp in an era of rapid medical innovation is a testament to its genius, simplicity, and versatility. A photograph of the clamp as it appears today is shown in Figure 7.

The similarity of the Satinsky clamp and the earlier partially occluding vascular clamps described by Kirschner and Meyer in the

---

[31]C. P. Bailey, R. P. Glover, and T. J. E. O'Neill, "The surgery of mitral stenosis," *Journal of Thoracic Surgery* 19 (1950), pp. 16–45.

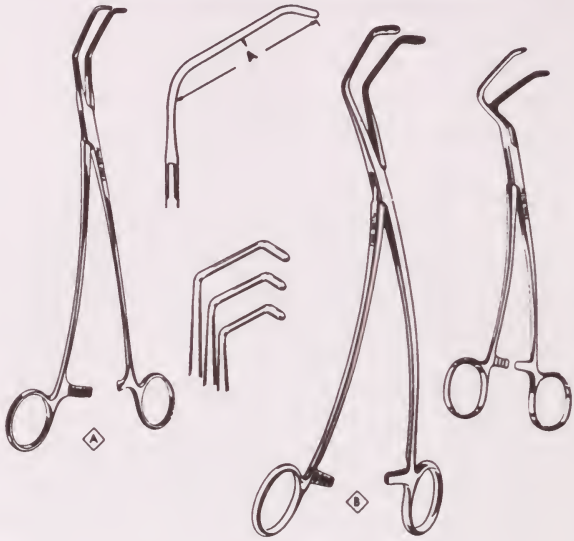
[32]Satinsky, conversation with M.D.E.; R. E. Gross, "Coarctation of the aorta; surgical treatment of 100 cases," *Circulation* 1 (1950), pp. 41–55.

[33]Satinsky, interview with M.D.E.

[34]Pilling, conversation with M.D.E.

[35]E. J. Smith and Y. R. Smith, *Smiths' reference and illustrated guide to surgical instruments* (Philadelphia: J.B. Lippincott, 1984).

CARDIOVASCULAR INSTRUMENTS



A SATINSKY Clamps. These instruments, originally designed for secure non-crushing grip in clamping the vena cava, have proven to be the most popular and versatile of all cardiac clamps. They are now provided in a variety of jaw types and sizes as listed. Overall length, 10 inches. Dull, non-glare finished stainless steel.

35–4000 Large, standard size *Atraugrip* jaws, (A) length, 50 mm., (A) depth, 13 mm.
35–4002 Medium size *Atraugrip* jaws, (A) length, 40 mm., (A) depth, 9 mm.
35–4004 Small size *Atraugrip* jaws, (A) length, 32 mm., (A) depth, 8 mm.
35–4005 Matched set of 3 Satinsky clamps.

B 35–4010 SATINSKY Clamp, large, standard size, with original criss-cross serrated jaws.

Figure 6. A 1973 Pilling catalogue entry showing the numerous sizes of the Satinsky clamp available (courtesy of Pilling Weck Surgical).

German literature raises the question of why Satinsky's eponymous clamp was adopted more widely and enduringly than other partially occluding vascular clamps. The success of Satinsky's clamp was enhanced by the high-profile surgeons who used the instrument for ground-breaking work in a variety of surgical subspecialties rather than exclusively for the portal caval shunt procedure for which the clamp was initially designed. The surgical environment at the time that Satinsky introduced his clamp was particularly conducive to successful innovation due to the introduction of antibiotics, improved methods of anesthesia, and the development of the heart-lung machine. In addition, the geographical focus of surgical innovation had

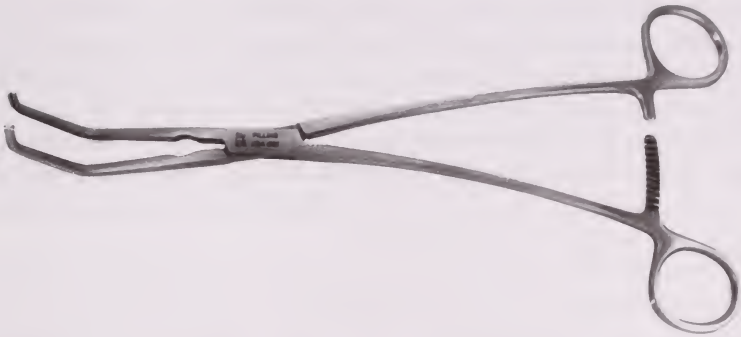


Figure 7. The modern Satinsky clamp has remained largely unchanged from the original version (photograph courtesy of Pilling Weck Surgical).

shifted from Germany to the United States after WWII and the deterioration of U.S.-German relations further limited the communication of German medical literature to American surgeons. This combination of factors helped assure the success of Satinsky's partially occluding clamp relative to its predecessors.

For a number of years, Satinsky practiced general surgery as an adjunct faculty member at Mt. Sinai Hospital in Philadelphia. Simplicity and efficiency were the hallmarks of his work, traits he had begun cultivating during his training with Harry Koster in New York. Satinsky's creativity as a surgeon was evident in his innovations. He advocated the thoraco-abdominal approach for selected cases of recurrent biliary obstruction, especially in previously operated patients.[36] Prior to 1952, the standard treatment for perforation of the esophagus at the site of a malignancy had been simple drainage of the mediastinum and placement of a jejunostomy or gastrostomy tube. Excision of the neoplasm was done later if the patient survived. In 1952, Satinsky reported the one-stage removal of an esophageal neoplasm with partial esophagectomy and subsequent esophagogastrostomy in a patient with mediastinitis.[37] He also developed the "Satinsky tube," a double-lumen, semi-rigid rubber tube with multiple perforations. When secured in the small intestine, the intestine

[36]V. P. Satinsky and S. D. Kron, "Thoraco-abdominal approach to the common bile duct," *American Journal of Surgery* 84 (1952), pp. 91–94.
[37]V. P. Satinsky and S. D. Kron, "One-stage esophagectomy in presence of mediastinitis," *Archives of Surgery* 64 (1952), p. 124.

became pleated like a compressed accordion. This "plication" effectively prevented obstruction in patients who suffered chronic abdominal adhesions.[38] Satinsky appeared particularly prophetic with regard to his principles for post-operative management. In a 1957 publication, he strongly advocated discharge of surgical patients as soon as possible, citing benefits of early discharge to both the patient and the hospital.[39] A summary of Satinsky's contributions to general surgery are presented in Table 1.

From 1946 to 1954, Satinsky concentrated most of his clinical efforts on cardiothoracic surgery. For those eight years, he served as Associate in the Department of Thoracic Surgery at Hahnemann Medical School in Philadelphia. For the next five years, he was a senior staff member and Director of Cardiovascular Research at Temple Hospital in Los Angeles. In 1961, he returned to Hahnemann as Professor and Director of Surgical Research. After Robert Gross in Boston had demonstrated the feasibility of preserving and employing aortic homografts for cases of coarctation of the aorta, Satinsky proposed complete transplantation of the aortic arch for severe diseases of the aorta. The success of this method was demonstrated in an animal model.[40]

Satinsky was also a staunch supporter of the surgical management of coronary artery disease. Together, Satinsky and Charles Bailey developed a set of graduated Satinsky coronary artery curettes and dilators that were used in the "reaming out" of coronary arteries. The successful use of coronary artery curettage was reported in six cases.[41] Satinsky's contributions to cardiac surgery include the creation of a third coronary artery and development of a cardiac pacer driven by myocardial electrical impulses.[42] A summary of Satinsky's contributions to cardiothoracic surgery and medicine are shown in Table 2.

---

[38]V. P. Satinsky and S. D. Kron, "Management of recurrent intestinal obstruction," *Connecticut State Medical Journal* 18 (1954), pp. 955–959.

[39]S. D. Kron and V. P. Satinsky, "Early post-operative discharge and home care," *General Practice* 16 (1957), p. 689.

[40]V. P. Satinsky, W. B. Neptune, and J. Alai, "Experimental transplantation of the complete arch of the aorta," *Annals of Surgery* 141 (1955), pp. 38–46.

[41]V. P. Satinsky et al., "Coronary curettage," *Diseases of the Chest* 35 (1959), pp. 88–94.

[42]V. P. Satinsky, "Third coronary artery," *Modern Medicine* 30 (1962), p. 58. V. P. Satinsky et al., "Cardiac pacing by means of electrical energy derived directly from the heart," *Surgery* 60 (1966), p. 600.

Satinsky retired from Hahnemann in 1977 and then retired from clinical practice a few years later. In recognition of his prodigious effort in advancing cardiothoracic surgery as an innovator, surgeon, author, and teacher, the Pennsylvania Association for Thoracic Surgery presented Satinsky with its prestigious John H. Gibbon Award in 1983 for outstanding contributions to cardiothoracic surgery.

Epilogue

Victor Satinsky's creativity was his essence and it stretched well beyond the fields of medicine and surgery. He championed the creative spirit itself and new ideas or innovations. Addressing the alumni of Jefferson Medical School, he spoke of two formidable impulses with which human beings are blessedly endowed:

> One, in the image of God in which man has been created, is creativity itself. The other is the so-called epistomephilic impulse, a puissant innate curiosity which, coupled with creativity, has enabled mankind to progress from the simple wheel to soaring into outer space, from candle light to the electric bulb, from caves to skyscrapers, from sign language to polysyllabic vocabulations, and to all manners of technical wonders.[43]

Satinsky's creative writing instinct lay dormant for many years but blossomed toward the later part of his surgical career and throughout retirement. He wrote nearly 5,000 unpublished poems, hundreds of essays, and 50 full-length plays. Nearly all of them were humorous, consistent with Satinsky's comedic personality. A few of his plays were produced both in the United States and abroad. He claimed he never revised his work; "the first draft was always the final one."[44]

Victor Satinsky also had an interest in helping adolescents. He mentored a number of Philadelphia high school students in his laboratory at Hahnemann for the summer. This opportunity to expose talented high school students to medical science through a summer

---

[43]V. P. Satinsky, "Physicians' extended career—then and now," *Jefferson Medical College Alumni Bulletin*, Summer (1988), pp. 1–9.
[44]Satinsky, interview with M.D.E.

Figure 8. Victor Satinsky, circa 1996 (courtesy of Helen Satinsky Splaver).

research experience at Hahnemann quickly blossomed to include dozens of students under his tutelage in many different laboratories. The program flourished, reaching as many as 140 students per summer.[45] Its success was reported in the *Journal of Medical Education*.[46] Satinsky also took an active role in educating and rehabilitating underachievers. His efforts culminated in 1977 when he established an alternative private high school, the Satinsky Institute. The Institute was formed on the precept of education integrated with psychotherapy, with an emphasis placed upon creativity. The Adolescent Psychiatry Association awarded Victor Satinsky an honorary degree for his efforts and successes with adolescents.

Victor Satinsky retired from clinical surgery in 1983. Not surprisingly, he remained quite active. (Figure 8) He began the martial art of Aikido at the age of 74, and by the age of 79 had earned his

---

[45]Ibid.

[46]V. P. Satinsky, "Bioscience summer educational program for high ability high school students," *Journal of Medical Education* 38 (1963), p. 880.

black belt. He continued as an instructor of Aikido until the last days of his life. Satinsky died quietly in his Philadelphia home September 7, 1997 at the age of 85. The authors were fortunate to interview Satinsky on multiple occasions during the last two years of his life. While it remains impossible to fully characterize the essence of an individual in a concise summary, it seems apparent that Victor Satinsky had tremendous faith in human nature. He believed that the greatest advances occurred when individuals were granted the freedom and encouragement to imagine and create. Satinsky's own ingenuity fueled countless surgical innovations. The most famous of these, the Satinsky clamp, is still used daily by vascular surgeons throughout the world.

Acknowledgments

The authors wish to acknowledge Morris Satinsky, Helen Satinsky Splaver, Jon Trout and Bill Pilling of Pilling Weck Surgical, Dan Flanagan of the Jefferson University Archives, and Barbara Williams of Hahnemann University Archives for their assistance with this project. Special gratitude is extended to Dr. Victor P. Satinsky for his graciousness and humor.

Table 1. Summary of Victor Satinsky's Contributions to General Surgery

- Thoraco-abdominal approach to common bile duct[47]
- Tubal plication of small intestines for recurrent intestinal obstruction[48]
- Repair of ventral hernia with transposition of lower costal cage cartilage
- One-stage esophagectomy in presence of mediastinitis[49]
- Early discharge of patients postoperatively[50]

[47]V. P. Satinsky and S. D. Kron, "Thoraco-abdominal approach to the common bile duct," *Am J Surg* 84 (1952): 91–94.

[48]V. P. Satinsky and S. D. Kron, "Management of recurrent intestinal obstruction," *Conn State Med J* 18 (1954): 955–959. V. P. Satinsky and S. D. Kron, "Recurrent intestinal obstruction: A new method of treatment," *J Albert Einstein Med Center* 1 (1952): 3.

[49]V. P. Satinsky and S. D. Kron, "One-stage esophagectomy in presence of mediastinitis," *Arch Surg* 64 (1952): 124.

[50]S. D. Kron and V. P. Satinsky, "Early post-operative discharge and home care," *Gen Practice* 16 (1957): 689.

Table 2. Victor Satinsky's Major Contributions to Cardiothoracic Surgery

- Use of a complete transplanted aortic arch for diseases of the aorta[51]
- Experimental model of pulmonary hypertension
- Non-suture closure of tracheal defect following pneumonectomy with complete ablation of the bronchial stump[52]
- Left transventricular approach to the aortic and mitral valves and to the interventricular septum[53]
- Creation of a third coronary artery[54]
- Cardio-cardiac pacing for complete heart block[55]
- Automatic defibrillator[56]
- Coronary sinus drainage for augmentation of coronary flow[57]
- A proposed telemetry system for control of an artificial heart
- A recording stethoscope[58]
- Helium Therapy for reduction of infarction of vital organs and muscle mass[59]

[51]V. P. Satinsky, W. B. Neptune, and J. Alai, "Experimental transplantation of the complete arch of the aorta," *Ann Surg* 141 (1955): 38–46.
[52]V. P. Satinsky, M. Delgado, and D. P. Morse, "A pericardial-cartilage prosthesis for closure of bronchus and/or segmental repair of tracheobronchial tree," *Abstracts of the Eleventh Annual Convention, The American College of Cardiology* (1962): 53.
[53]V. P. Satinsky et al., "Left transventricular approach to the aortic and mitral valves and to interventricular septum," *Circulation* 16 (1957): 689.
[54]V. P. Satinsky, "Third coronary artery," *Modern Med* 30 (1962): 58.
[55]V. P. Satinsky et al., "Autocardiac pacing by means of electrical energy derived directly from the heart," *Circulation* 32 (1965): 187.
[56]V. P. Satinsky and N. Braslow, "Heart monitor automatic activated defibrillator," *MedTribune* 9 (1968): 3.
[57]V. P. Satinsky, A. Chan, and A. Adam, "Coronary artery graft featuring diastolic phase filling by the utilization of the posterior sinus of Valsalva: Its function under normal and abnormal conditions," *Circulation* 26 (1962): 781.
[58]W. Likoff, V. P. Satinsky, and S. Williams, "Likoff-Williams recording stethoscope S-118," *J Med Soc New Jersey* 71 (1974): 288.
[59]V. P. Satinsky, R. J. Toltzis, and A. Toltzis, "Helium therapy for the prevention of ventricular fibrillation following myocardial infarction," *J Med Soc New Jersey* 69 (1972): 331.

Historical Aspects of Contemporary Complementary Medicine

Marc S. Micozzi

Over the past fifty years, a heavily biomolecular and technologically intensive model has directed medical care in the United States. We are currently witnessing an increasing interest in and demand for the integration of principles and treatments from other healing systems. Many of these systems were widely practiced in the past but became marginalized when they could no longer compete with the impressive successes of laboratory-based medicine. Others were practiced by indigenous populations in remote locations. The fact that many of these systems have persisted for centuries and continue to draw adherents suggests that they offer some form of satisfaction or relief for patients with a variety of complaints. In some eras and situations the popularity of these systems has outstripped allopathic medicine's appeal. As recently as 1993, D. M. Eisenberg and colleagues determined that more than 10 percent of Americans had consulted a non-allopathic practitioner during the previous year and one third had used alternative or complementary therapies.[1] These findings have been widely confirmed and create an obligation for contemporary health care practitioners to familiarize themselves with the range of healing modalities their patients may be pursuing.

The persistence and even renewal of interest in complementary healing systems in the United States and abroad suggests that these systems may be actively addressing aspects of patient care that are underserved by contemporary allopathic medicine. Recognition of these possibilities have encouraged allopathic physicians, from private practitioners to N.I.H. administrators, to pay increasing attention to complementary medicine. In many settings such initiatives have been rebuffed, often by those least familiar with the practice and principles of complementary medicine. The following description of five major complementary traditions currently practiced in the United States and

[1]D. M. Eisenberg, R. Kessler, C. Foster, F. Norlock, D. Culkins, and R. Delbanco, "Unconventional medicine in the United States," *NEJM* 328 (1993), pp. 246–252.

globally emphasizes the historical continuity achieved by these traditions in order to gain a better understanding of the reasons for their successful survival. Increased familiarity with the content of complementary practices raises the level of debate about the place of complementary medicine without refuting the efficacy frequently provided by the biomedical model.

Chiropractic

Formalized in the American Midwest a little over a century ago, this form of manual healing entered mainstream health care while preserving its essential tenets. Modern chiropractors have become part of the health care establishment, with licensing requirements, an increasing commitment to scientific research, widespread insurance reimbursement, and approximately twenty million patients a year. Chiropractic still retains some of the cachet of an alternative practice specifically through its emphasis on healing without drugs.

Descriptions of therapeutic spinal manipulation appear in the Hippocratic corpus and in the work of Roman physicians such as Galen. Traditional "bone-setters" in Europe and later in the United States employed manual techniques to treat a variety of musculoskeletal as well as systemic complaints.[2] By the second half of the nineteenth century, several types of manual therapy had gained a following in the United States. In 1895, Daniel David Palmer, a self-educated healer in Davenport, Iowa, first proposed his system of healing based on two fundamental premises: that vertebral subluxation or misalignment was the basis of virtually all disease and that chiropractic adjustment (manual manipulation of the subluxed vertebra) could effect a cure. While few, if any, contemporary chiropractors limit their approach to this extremely simplistic formula, the focus of chiropractic practice remains the detection and correction of spinal subluxation. Chiropractors do more, but it is their ability to do this one thing well that has allowed them to survive for over a century, much of the time in the face of substantial opposition from the medical profession.

---

[2]Robert Joy, "The Natural Bonesetters with Special Reference to the Sweet Family of Rhode Island," *Bulletin of the History of Medicine* 18 (1954), pp. 416–441; Douglas Graham, *A Practical Treatise on Massage: Its History, Mode of Application and Effects* (New York: William Wood, 1884). For more contemporary material, see G. M. Bennet, *The Art of the Bonesetter* (Isleworth: Tamor Pierston, 1981).

Curanderismo

Curanderismo, from the Spanish verb *curar* (to heal), is a tradition practiced in Mexican American communities throughout the United States. It shares historical roots with the traditional healing practices found in Puerto Rican and Cuban American communities, as well as with traditional practices found throughout Latin America. At the same time, it has a history and a set of traditional medical practices that are linked to unique aspects of Mexican cultural history and the Mexican American experience in the United States.

Although curanderismo bears the mark of Greek and Judeo-Christian beliefs brought by the Spanish, it also incorporates beliefs that originated with the Aztecs and other indigenous populations of Central America. Some of the folk illnesses treated in pre-Columbian times, such as fallen fontanelle (caida de la mollera) and perhaps blockage of the intestines (empacho), also reflect these local traditions. The flora and fauna of the New World helped shaped the pharmacopoeia of curanderismo while at the same time empowering Western medicine with new substances such as quinine and curare. The melding of cultures that first created curanderismo continues to influence its practice today, as many practitioners have begun incorporating aspects of New Age spirituality, acupuncture, and Eastern healing practices. Moreover, curanderismo operates as a traditional healing system within a modern environment. Biomedical beliefs, treatments, and practices are very much part of curanderismo and are supported by curanderos. It is not unusual for healers to recommend the use of antibiotics, often available over the counter in Mexico, for infectious diseases and other illnesses. These healers also use information obtained from television and other sources to provide advice on nutrition, exercise, and disease prevention.

Healing Touch

Healing touch (HT) is one of a long line of healing traditions based on belief in a universal healing energy. As a healing strategy, contemporary HT includes new techniques as well as modern variations of indigenous practices found around the world. Strategic manipulation of healing energy is credited with relieving physical and emotional distress. Some approaches use a practitioner's hands to sense and interact with a person's energy flow; others, such as meditation and biofeedback, use the person's mind.

Many cultures have developed rich philosophies and healing traditions around the concept of universal energy.[3] Terms used to describe the phenomenon have included *prana* in India, *ch'I, qi,* and *ki* in China, Thailand, and Japan, and *mana* in Hawaii. In 500 B.C. Pythagoras invoked a term generally translated as *vital energy*. Mesmer, an eighteenth-century practitioner of hypnosis, described a comparable effect as *animal magnetism*. In Western scientific literature, descriptions of quantum and electromagnetic fields share characteristics with the concepts of *prana*, *ch'i*, *mana*, and *magnetic fluid*.

Contemporary efforts to manipulate a universal energy for healing purposes generally fit one of three models: intuitive trial and error, a single traditional approach, or a combination of several techniques. Polarity therapy is an example of a combination technique and resulted largely from Randolph Stone's sixty-year-long effort to blend elements of osteopathy, naturopathy, chiropractic, acupuncture, herbology, reflexology, Eastern massage techniques, and Arabic healing arts.[4] The Kreiger Kunz Method of Therapeutic Touch, on the other hand, does not blend disparate traditions. It offers a modern interpretation of ancient pranic healing involving the "laying on of hands."[5]

Homeopathy

Contemporary homeopathy is a method of encouraging self-healing through the administration of very small doses of medicinal substances. Homeopathy is practiced by physicians and other healers in Germany, France, and England, as well as in India and elsewhere in Asia. Exclusive reliance on very small and dilute doses of non-toxic substances make it legal to practice homeopathy without a medical license in the United States and a United States Pharmacopoeia was initiated and maintained by Senator S. Royal Copeland since 1937.[6]

---

[3]R. Bryere, *Wheels of Light: A Study of Chakras* (Sierra Madre: Bon, 1989).

[4]R. Gordon, *Your Healing Hands: The Polarity Experience* (Oakland: Wingbow, 1978).

[5]D. Krieger, *The Therapeutic Touch: How to Use Your Hands to Help or Heal* (New York: Prentice-Hall, 1979) and *Living the Therapeutic Touch: Healing as a Lifestyle* (New York: Dodd, Mead & Co., 1987) and *Accepting Your Power to Heal: The Personal Practice of Therapeutic Touch* (Santa Fe: Bear, 1993).

[6]Senator Copeland's papers are included in the Bram collection of the Historical Library of the College of Physicians.

The current homeopathic pharmacopoeia currently recognizes more than 2,000 remedies, with more being actively added. Most are of plant origin, but some are minerals or animal products, including venoms, secretions and glandular extracts. Many are available at general pharmacies or through specialty outlets. Treatment is selected based on a compatibility between the patient's most prominent complaint or symptom and known characteristics of specific remedies.

The homeopathic method was first developed by Samuel Hahnemann (1755–1843). Hahnemann had studied medicine at Liepzig and then practiced in Liepzig and Vienna for ten years. After himself ingesting cinchona, Hahnemann embarked on a lifelong career of observing the effects, on healthy persons, of the various medicinals discussed in William Cullen's *Materia Medica*. Over the years Hahnemann conducted trials or provings, as he called them, on himself, his family, friends, colleagues, or students. Through a series of experiments between 1790 and 1810, Hahnemann demonstrated that medicinal substances elicit a standard array of symptoms in healthy people. As a believer in the self-healing reflexes of the human body, Hahnemann already interpreted physical symptoms as evidence of the body's efforts to eliminate or overcome disease.[7] Hahnemann was looking for medicinals that could be given to enhance the body's own healing response. An agent that produced warmth, for instance, could be given to further a fever that was part of the body's effort to rid itself of disease. Thus the oft-quoted phrase associated with his system: "similia similibus curentur" or "let like cure like." Hahnemann used the term *homeopathy* to emphasize the similarity between the body's symptom and the effect produced by selected medicine. In 1810 Hahnemann published his most important work, *Organon of Rational Healing*. The Historical Library of the College of Physicians currently holds more than eight nineteenth-century editions of this text, the earliest published in 1832.

From the outset, Hahnemann incurred the displeasure of pharmacists and conventional practitioners to the extent that he was prevented from practicing in several German communities where he sought to settle. By the time of his death in 1843, followers of his system had imported his ideas throughout Europe and into the United States. Animosity between homeopathic and allopathic practitioners in the United States led many local medical societies to expel M.D.

---

[7]This view differed from the equilibrium oriented model of disease that interpreted symptoms as evidence of the excess or deficiency caused by imbalances within the human system.

members who in any way supported, collaborated, or consulted with persons engaged in the practice of homeopathy.[8] The persistent appeal of homeopathy has been attributed to its recommendation of infinitesimal doses in an era when conventional medicine often advocated aggressive phlebotomy or strenuous emetics and cathartics. Although homeopathy continues to be practiced by certain physicians, traditionally homeopathy has always encouraged a democratic and populist approach of encouraging lay practitioners. Non-aggressive therapy and a populist flavor are two historically derived traits that help explain the resurgence of interest in homeopathy in an era when medical recommendations often entail complex surgical procedures or the delivery of extraordinarily powerful pharmaceuticals with equally powerful side effects. Similarly, the enhanced information gap between modern scientific medicine and certain sectors of the American public has created an additional reason for turning toward a system that offers a simpler and more accessible explanatory model.

Traditional Medicine of China

We have a tendency to think of Chinese medicine as a monolithic structure that has remained essentially unchanged since its origins, which—if legend is to be believed—reach back at least 4,500 years. Instead, Chinese medicine includes a tremendously diverse body of knowledge. It is extremely tempting for Westerners to expect medical systems to be possessed of an internal logic that reconciles all of their elements. Although many aspects of Chinese medicine fit together with complete consistency, others appear to be quite contradictory. This trait leads us to what has probably been the most important aspect of Chinese medicine throughout its history: it is a cumulative medical tradition that rarely throws anything away. Cer-

---

[8]*Transactions and Studies* (XX/1998) reprinted charges brought against prominent Philadelphia physician Samuel Gross for seeing the patient of a homeopathic physician as a consultant. Gross did not argue against the interdiction of recognizing homeopaths as colleagues; he merely argued that he had had no way of knowing that the referring physician was a homeopath rather than an allopathic M.D. See "Charges of Unethical Conduct Made by the Camden County Medical Society Against Samuel D. Gross, M.D. and Joseph Pancoast, M.D.," as introduced by Henry Sherk and Katherine Simons, *Transactions and Studies of the College of Physicians of Philadelphia* XX (1998), pp. 98–114.

tain medical practices may have been moved to the back burner but they remain available if needed.

A striking example of this is the work of Zhang Zhong Jing (142 to 220 A.D.), whose system of diagnosis and therapy did not attract much attention during his lifetime but became highly influential centuries after his death. Later medical professionals believed his theory to be incomplete and broadened its perspective, but his theories, and the new theories that emerged in response to them, are still important to contemporary practitioners of Chinese medicine.

In modern China, the sheer volume of information and the size of the population make it necessary to teach a standard curriculum to thousands of students each year, but tolerance for varying clinical perspectives is evident. There are, for instance, herbal physicians known as "Minor Bupleurum Decoction *(Xiao Chai Hu Tang)* doctors" because their prescriptions are organized around one formula from the *Treatise on Cold Damage (Shang Han Lun),* an early text on diagnosis and herbal therapy written during the Han dynasty (206 B.C. to 220 A.D.). There also are herbal physicians who reject traditional formulas entirely and use contemporary perspectives on the Chinese pharmacopoeia to organize their prescriptions.

Within acupuncture, there are practitioners whose clinical focus might be dedicated almost entirely to six acupuncture points and who use CT scans to plan interventions. At the same time, two floors below in the same hospital, physicians may base their selection of acupuncture points on obscure and complex aspects of traditional calendars and systems such as the "Magic Turtle." Chinese medicine remains a large and varied tradition with many manifestations and philosophies.

Some scholars say that Chinese medicine began with the legendary emperors Fu Xi, Shen Nong, and Huang Di, who lived more than 4,500 years ago. Written records pick up the story much later, with the first references to medical practices that faintly resemble current Chinese medicine about the end of the third century B.C. Acupuncture is not mentioned as a therapeutic method until 90 B.C. Efforts have been made to interpret archeological evidence and textual materials as establishing the antiquity of certain Chinese medical practices by drawing parallels between ancient artifacts, such as stone "needles," and modern acupuncture tools.

The Yellow Emperor's Inner Classic (Huang Di Nei Jing) was the first writing in which traditional Chinese medicine was described in a form that is familiar to us today. The text is divided into two books. "Simple Questions" *(Su Wen)* is concerned with medical the-

ory, such as the principles of yin and yang (paired opposites in dynamic equilibrium, which help define the nature of life), the five phases (which relate to dynamic processes in the body), and the effects of seasons. "The Spiritual Axis" *(Ling Shu)* deals predominantly with acupuncture and moxibustion. *The Yellow Emperor's Inner Classic* was not written by the emperor himself but was compiled after his death, probably around 100 B.C.

Little is actually known about the practice of medicine in China before 200 B.C.E. Ancient Chinese civilization started with nomadic, neolithic tribes; originally scattered across Northern China, they eventually established permanent settlements and developed a social and political structure that became the Shang dynasty (1766 to 1121 B.C.). Ancestors were venerated and consulted on a variety of issues, including the cause of illness, through the use of oracle bones.

The Zhou overthrew the Shang and established one of China's longest-lasting dynasties (1122 to 221 B.C.). The Zhou dynasty continued many of the Shang practices, including consulting tortoise shell oracles with the aid of *wu* (healer/priests). The *wu* acted as intermediaries between the living and the dead, played important ritual roles in court activities and the weather, and were called upon to combat demons that caused illness. One of the *wu*'s activities, chasing evil spirits away from towns and homes with spears, might have been transferred to the human body, leading to the practice of acupuncture.

Toward the close of the Zhou dynasty came a time of violent political strife and social upheaval known as The Warring States period. This era saw the emergence of two philosophers, Kong Fu Zi (Confucius) and Lao Zi, whose ideas about social and natural order were to have a lasting impact on Chinese culture. In medicine, too, a sense of natural order was emerging, and the human body was no longer seen as subject to the whims of spirits and demons, but rather as part of a coherent natural environment. Those ideas, rooted in the Zhou period, would blossom during the Han Dynasty.

The Zhou dynasty ended in 211 B.C. after a period of confusion and political instability. The short-lived Qin Dynasty completed the first version of the Great Wall of China but disappeared soon afterwards. The Han dynasty (206 B.C. to 219 A.D.) reunited the empire, created a stable aristocratic social order, expanded geographically and economically, and spread Chinese political influence throughout Vietnam and Korea. This dynasty was such a powerful force that, even today, the Chinese people refer to themselves as "the Han." Great cultural developments took place during the Han, including

integration of the Confucian doctrine, elements of yin-yang, and the five-phase theory. Written evidence reveals the emergence of a medicine system similar to the traditional Chinese medicine known in modern times.

The earliest medical literature that survives from that era consists of three texts discovered in tombs dating to 168 B.C., excavated at Ma Wang Dui in Hunan province. These texts discuss demons, magic, and the relation of yin and yang to the body. The writings present an early concept of energy channels in the body, but in a less developed fashion than they would later be described in the *Yellow Emperor's Inner Classic*. The Ma Wang Dui texts mention moxibustion and the use of heated stones, but they do not speak about acupuncture or specific points on the body, suggesting that the idea of acupuncture had not yet emerged at this time.

The Divine Husbandman's Classic of Materia Medica (Shen Nong Ben Cao) appeared during this era, presenting the first known example of what has become a very long line of formal descriptions of individual medicinal substances. This period also saw the publication of *The Yellow Emperor's Inner Classic,* with its detailed descriptions of medical theory and the use of acupuncture and moxibustion; its wisdom still guides the practice of traditional Chinese medicine today, and it is often quoted in contemporary medical texts. *The Classic of Difficult Issues (Nan Jing)* was compiled sometime during the first or second century A.D., although its authorship is attributed to the legendary physician Bian Qu, who lived in the 5th century B.C. It marks a drastic shift in medical thinking away from magic elements and toward systematic organization of acupuncture theory and practice.

Such learned texts reflected the health care available to the elite rather than the medical traditions of the general population. At that time, about 80 percent of Chinese people were illiterate farmers or peasants scratching out a bare subsistence. Their traditions were oral, locally oriented, and full of folk superstition, historical legend, and aspirations dominated by the hope of survival. Later, these folk herbal and medical traditions were collected, organized, and published under the Qing dynasty (1644 to 1911). They were even more extensively explored and recorded during the twentieth century under the guidance of the post-revolutionary government of China when they became the basis of texts such as *The Barefoot Doctor's Manual.*

In 220 A.D., after thirty years of strife and religious rebellion by Daoist sects, the Han dynasty fell. Another long period of civil unrest

followed, although not as violent as the Warring States period at the end of the Zhou dynasty. In 589 A.D., the Sui dynasty reunified China but was soon succeeded by the Tang dynasty (618 to 907), considered by many to represent the height of China's cultural development. The Tang dynasty spread China's influence as far as Mongolia, Vietnam, Central Asia, Korea, and Japan. During this period, both Buddhism and Daoism strongly influenced medical thought.

The next dynasty, the Sung (960 to 1280 A.D.), saw the practice of medicine become more specialized and promoted efforts to systematically integrate past insights. In 1027, Wang Wei Yi designed and oversaw the casting of two bronze figures designed to illustrate the location of acupuncture points. The bronzes were pierced at the location of the acupuncture points, covered with wax, and filled with water. When a medical student inserted a needle in the correct place, he found the hole under the wax, and water dripped out, confirming that the needle had been properly placed.

Herbal therapeutics advanced during the Sung dynasty. Several complete, illustrated herbal texts were published by the imperial government. It was during this time that tastes and properties were assigned to herbs according to their yin or yang nature.

During the Sung, Jin, and Yuan dynasties (960 to 1368 A.D.), medical education became more formal, the Imperial College of Physicians was founded, and specialized medical thought and independent inquiry continued to develop. Much of what we recognize as Chinese medicine today stems from these three dynasties. Physicians of this period revisited some early theories and used them to develop new therapeutic approaches. They espoused the application of five-phase theory *(wu xing),* in which dynamic processes in the body are defined in terms of the five phases: earth, metal, water, wood, and fire. Each of these phases is related to various organs of the body, the seasons, times of day, tastes, colors, vocalizations, and other factors. During these three dynasties, the five phases were studied most intensively in relation to seasonal influences and as a way of supplementing the body, purging the body of evil influences, and enhancing yin.

From the fourteenth to the twentieth century, Chinese physicians refined lines of inquiry introduced by preceding dynasties. Some scholars consider the Ming dynasty (1368 to 1644) to represent the peak of the cultural expression of acupuncture and moxibustion in China. In 1644, the Ming dynasty fell to foreigners from Manchuria who founded the Qing dynasty (1644 to 1911). Political, economic, and social changes swept the land—for instance, the Chinese were

forced to wear pigtails for the first time in their history, a fact that the "Han" resented bitterly. New food crops, including maize, sweet potatoes, peanuts, and potatoes, were imported from the New World. And as cultural horizons broadened, the scope of medical inquiry expanded, shaking the classical underpinnings of Chinese medical thought. In 1822, acupuncture was formally eliminated from the Imperial Medical College. By the close of the Qing dynasty in 1911, political and cultural institutions were in a state of decline. The scattered practitioners of traditional Chinese medicine found themselves increasingly under fire from the advocates of a new and modern China.

With the formation of the Republic of China in 1911, reformers attempted to institute sweeping cultural changes, pushing aside remnants of the old empire to make way for the modern age. In medicine, that meant trying to replace traditional practices with contemporary science. The Imperial Medical College was closed, from 1914 to 1936, while nationalists and Marxists sought to "reform" practitioners of traditional medicine. Even the name came under attack; what had always been simply called "medicine" *(yi)* was now called "Chinese medicine" *(zhong yi),* and those practices that were deemed manifestly "unscientific" were rejected. *Zhong yi* emerged as the redefined traditional Chinese medicine that is still practiced today.

The aspects of traditional medicine that survived as *zhong yi* were later appropriated by the People's Republic of China in an effort to build a strong, low-cost medical infrastructure for the new nation's vast population. In 1958, Chairman Mao declared, "Chinese medicine is a great treasure house! We must uncover it and raise its standards!" Traditional medicine was to be rehabilitated by modernists who would "discover" a primitive dialectic (logic) within the theoretical underpinnings of the system. *The Revised Outline of Chinese Medicine* stated that "Yin-yang and the five phases are ancient Chinese philosophical ideas. They are spontaneous, naive materialist theories that also contain elementary dialectical ideas."

Today, *zhong yi* exists in China and abroad as a parallel medical system, integrating biomedical elements while retaining fidelity to the traditional concepts of Chinese medicine. Educational programs emphasize acupuncture and herbal medicine, and range from an undergraduate technical certificate to Ph.D. programs. Most independent practitioners enter the field with a five-year medical baccalaureate degree (MB/BS) that is earned following high school. In this system both inpatient and outpatient medical care is delivered at large hospitals as well as through private clinics and pharmacies.

This review of the historical origins of five non-allopathic medical traditions purposely omitted osteopathic medicine because its practice in the United States and abroad is so firmly established as to have exceeded the category of complementary. Numerous smaller traditions such as Reiki, Feldenkreis, and Voodun were overlooked as well. Further information on the historical evolution of these practices in the United States can be found in Norman Gevitz, ed., *Other Healers: Unorthodox Medicine in America* (Baltimore: Johns Hopkins University Press, 1988) and Marc Micozzi, ed., *Fundamentals of Complementary and Alternative Medicine* (New York: Churchill Livingstone, 1996; 2nd edition in press).

Lithotripsy in America: Transfer of the Technique from Europe, 1824–1840

James M. Edmonson

When Jean Civiale performed lithotripsy on a human subject in 1823, he initiated the field we now call "minimally invasive surgery." Lithotripsy consisted of passing an instrument through the urethra and into the bladder to seize and crush stones or calculi. The resulting debris could be expelled when the patient voided or flushed out using a catheter. Although lithotripsy was first attempted in Europe, the practice crossed the Atlantic very rapidly. How did this happen, and what did American doctors learn about lithotripsy? What can the example of lithotripsy teach us about the transfer of medical technology in the past and perhaps even today?

As early as 1824 Americans heard about lithotripsy from countrymen traveling abroad. In the following year, articles in several American medical journals described the technique and the instruments used by Jean Civiale.[1] Prominent American surgeons soon attempted to perform Civiale's procedure. In 1824 Philip Syng Physick, Professor of Surgery at the University of Pennsylvania, tried lithotripsy without success, as did John Rhea Barton at the Pennsylvania Hospital.[2,3] Both surgeons utilized American-made instruments

---

[1]"Civiale's lithontriptor," *New York Medical and Physical Journal* 4 (1825), pp. 141–42; G. Jameson, "An examination of the operation for the destruction of stone in the bladder proposed by M. Civiale, of Paris, with a description of a new mode of performing the lateral operation," *American Medical Recorder* 8 (1825), pp. 649–81; [review] "De la Lithotritie, ou Broiement de la pierre dans la vessie. Par le Docteur Civiale, avec cinq planches. Paris, 1827. p. 254." in *New York Medical and Physical Journal* 6 (1827), pp. 278–90; and [review of Civiale's work] *North American Medical and Surgical Journal* 2 (1825), p. 431.

[2]Jacob Randolph, "A memoir on the life and character of Philip Syng Physick, M.D.," Medical Examiner 2 (1839), pp. 261–84, and L. R. C. Agnew and G. F. Sheldon, "Philip Syng Physick (1768–1837) 'The father of American surgery,' " *Journal of Medical Education* 35 (1960), pp. 541–49.

[3]William Gibson, *The Institutes and Practice of Surgery*, 3rd ed. (Philadelphia: Carey & Lea, 1832). Gibson mentions unsuccessful attempts at lithotrity by Physick and Barton of Philadelphia, and Mitchell and Harris of Delaware, as well as his own: "In

that were poor copies of Civiale's.[4] Valentine Mott, Professor of Surgery at Columbia College of Physicians and Surgeons in New York, acquired a genuine Civiale *lithotripteur* in 1825, but had little success with the instrument.[5,6]

It became evident to these surgeons that successful adoption of lithotripsy would depend upon direct observation of the technique by Americans visiting France. In addition, they would have to acquire European instruments and bring them back to America. Rene La Roche of Philadelphia learned about Civiale's lithotripsy from Samuel Brown, a friend spending the summer of 1824 in Paris.[7] During his visit, Brown called upon Civiale, who "instantly shewed me all his instruments . . ." and ". . . kindly invited me to be present at all his operations whilst I remained in Paris."[8] Brown wrote to La Roche and proclaimed, "since the discovery of vaccination nothing so interesting to humanity has been made known."[9] La Roche immediately became a vocal supporter of Civiale. In 1824 he translated and published Percy and Chaussier's report to the Royal Academy of Medicine on the subject.[10] La Roche then tried to per-

---

three instances I have introduced the instrument of Civiale into the bladders of different patients labouring under stone, none of whom could bear it to remain beyond two minutes" (II:385–86).

[4]Physick may have used a variant designed by the Philadelphia mechanic, I. Lukens. See W. E. Horner, "An account of Mr. I. Luken's lithokonion," *Philadelphia Journal of Medicine and the Physical Sciences* 10 (1825), pp. 373–79, and 2 pl.

[5]Ira M. Rutkow, "Valentine Mott (1785–1865), the father of American vascular surgery: a historical perspective," *Surgery* 85 (1979), pp. 441–50.

[6]"Civiale's lithontriptor," *New York Medical and Physical Journal* 4 (1825), pp. 141–42. Brief mention of Civiale's *lithontripteur:* "We have seen in the possession of Dr. Mott, the beautiful and ingenious instrument, invented by Mons. Civiale of Paris, for boring the caluculus in the bladder . . . Dr. Mott has commenced preparing a patient for the trial of the lithontriptor, by enlarging the urethra with bougies. We hope to be able in our next number to give the result." No mention was made of Mott's apparently unsuccessful trials in subsequent volumes of the journal.

[7]"Rene La Roche (1795–1872)," H. A. Kelly and W. L. Burrage, eds., *Dictionary of American Medical Biography: Lives of Eminent Physicians of the United States and Canada, from the Earliest Times* (1928), p. 680. Curiously, La Roche's role in bringing lithotripsy to America is not mentioned in this account in one of the standard biographical dictionaries of American physicians.

[8]Quoted in John Harley Warner, *Against the spirit of system: The French impulse in nineteenth-century American medicine* (Princeton University Press, 1998), p. 138. Brown was the uncle of La Roche's fiancée.

[9]Ibid., p. 138.

[10]Percy and Chaussier, *Report made to the Institute of France . . . on a memoir presented by M. Civiale, entitled "A new method of destroying the stone in the bladder without the operation of lithotomy."* [Translated from the French by Rene La Roche, M.D.] Philadelphia, 1824. This may have been the first notice in America of Civiale's innovation.

form the procedure, relying upon a description of instruments sent to him by Brown.[11] The attempt failed, and La Roche blamed his American-made instruments. La Roche later traveled to Paris to meet the celebrated Civiale and to observe lithotripsy firsthand. Civiale took La Roche to the Hopital du Gros Caillou [how apt!], where he witnessed two procedures on 28 June 1827.[12] La Roche later wrote that ". . . the failures in America arise from the improper construction [of instruments]."[13] After he returned to America in 1828, La Roche corresponded with Civiale, who sought information regarding the American experience with lithotripsy. However, La Roche did not continue such attempts. Instead, he referred cases of stone to Jacob Randolph, a Philadelphia surgeon. Despite his decision to abandon lithotripsy, Rene La Roche had made a notable impact. His publications alerted Americans to the great potential of this new technique.[14]

The first successful lithotripsy in America took place in New York City, performed by L. Depeyre in October, 1830. Depeyre complained that he "could only obtain an instrument with a handle (*lithontriteur a manivelle*), which is very imperfect and feeble in its operation."[15] The procedure was not successful at first, so Depeyre had an instrument maker fabricate "an apparatus like that of M. Civiale" and successfully repeated the procedure in November and December 1830.[16] Little is known about Depeyre, who according to one source was "a French gentleman residing in New York."[17] He apparently made no further contributions to lithotripsy in America.

---

[11]"Account of operations for destroying the stone, performed by M. Civiale. In a letter to Dr. Hodge from R. La Roche, M.D.," *North American Medical and Surgical Journal* 5 (1828), pp. 74–84. La Roche refers to "our friend Dr. Brown." La Roche wrote in his biographical notice on Samuel Brown (1769–1830) that "to add to his stock of knowledge, in the various departments of medical science, Dr. Brown, during the recess of the college, in the summer of 1824, repaired to Paris, where he remained several months . . ." Rene La Roche, "Samuel Brown, 1769–1830," in Gross, *Lives*, pp. 231–46.

[12]Ibid., pp. 74–84.

[13]Ibid., p. 78.

[14]La Roche became an editor of the *North American Medical and Surgical Journal* and in that capacity published notices and reviews of works on lithotrity. See [review] "Expose des divers procedes employes jusqu'a ce jour pour guerir de la Pierre, sans avoir recours a l'operation de la Taille. Par J. Leroy, (d'Etoille) D. M. p. 232 Paris, 1825," *North American Medical and Surgical Journal* 4 (1827), pp. 146–54.

[15]"Note on the operation of lithontripty, recently performed in this city. By L. Depeyre, M.D." *New York Medical Journal* 3 (1831), p. 384.

[16]Ibid., p. 385. The dates of the procedure were 29 November and 8 December.

[17]Norris, "Biographical notice of Dr. Jacob Randolph," *Transactions of the College of Physicians of Philadelphia* 2 (1846), p. 287.

Instead, two Philadelphia surgeons, Jacob Randolph and William Gibson, became the leading advocates of lithotripsy in America.

Jacob Randolph, son-in-law of the distinguished Dr. Physick, first learned about Civiale's technique from the 1824 report translated by La Roche.[18] He witnessed the failed attempts of Physick, but did not become discouraged. Instead, Randolph resolved to "qualify myself in every way possible for the performance of the operation."[19] When he became surgeon to the Philadelphia Almshouse Infirmary in 1830, Randolph began "practicing the operation upon the dead subject, and I embraced every opportunity of putting a stone into the bladder and destroying it by means of the instruments." He also procured a complete set of Civiale's instruments, and was ready to give them a try. In the fall of 1832, Randolph performed his first successful lithotripsy upon a patient referred by his colleague, La Roche.[20] In the first operation, in September, he used Civiale's *lithotriteur*, and in a second procedure on the same patient in November, he employed Jacobson's *brise-pierre articule*. On later occasions, Randolph used the two instruments in conjunction; the former to perforate and the latter to crush the stone. At this time he did not yet use Heurteloup's *percuteur courbe a marteau*, but he would later, after 1834. However, Randolph preferred Jacobson's instrument, feeling that it was safer. Colleagues were impressed with his dexterity and competence in handling the lithotripsy instruments.[21] Over the next few years, Randolph performed at least twenty-two lithotripsy procedures, with only one or two deaths. He reported

---

[18]"Jacob Randolph (1796–1848)," Kelly and Burrage, p. 956.

[19]Jacob Randolph, "Clinical lectures. Pennsylvania Hospital. Lithotripsy," *Medical Examiner* 1 (1838), pp. 160–61. J. Aitken Meigs wrote in his biographical sketch on Randolph: "At this time he was rapidly acquiring an enviable reputation for surgical ability; and this reputation he pushed to a still greater extent by taking up, in 1831, and introducing into this country, the operation of Lithotripsy, which, in the hands of Baron Heurteloup, was at that time engaging so much attention in Europe." J. Aitken Meigs, "Jacob Randolph, 1796–1848," in Samuel D. Gross, *Lives of Eminent American Physicians and Surgeons of the Nineteenth Century* (Philadelphia: Lindsay and Blakiston, 1861), p. 515.

[20]Jacob Randolph, "Account of six cases of stone in the bladder, in which operations of lithotripsy was successfully performed," *American Journal of Medical Sciences* 15 (1834), pp. 13–29.

[21]Isaac Hays, "Notice of a case of urinary calculus, in which Dr. J. Randolph successfully performed lithotripsy," *American Journal of Medical Sciences* 17 (1835). The article provided an account of Hays' patient being treated by Randolph, who performed lithotripsy using Jacobson's *brise-pierre* in September 1835.

these cases in the prestigious *American Journal of Medical Sciences*, in an effort to convince American surgeons of the safety and efficacy of lithotripsy.[22] In 1840 Randolph left America for a two-year sojourn in Europe. While abroad he spent much time in Paris, where he undoubtedly visited Civiale. By the time of his death in 1848, Randolph had performed more lithotripsy procedures than any other American.[23]

William Gibson, Professor of Surgery at the University of Pennsylvania, also became interested in lithotripsy, but was discouraged at first by the failures of his colleagues.[24] Gibson anticipated the acceptance of lithotripsy, however, and wrote in 1832 that "any expedient calculated to supersede so dreadful an operation as lithotomy, should be embraced with eagerness."[25] Gibson's opinion of lithotripsy improved steadily in the early 1830s, but he knew that technical problems persisted. He wrote that ". . . although there are now many successful operators in Europe, and a few in this country, every one of them . . . will acknowledge that lithotrity requires . . . above all *instruments* which not one cutler in a thousand can manufacture."[26] For his own attempts at lithotripsy, Gibson "ordered a set from Paris, of the finest finish and construction, which, through the kindness of M. Civiale, were made under his own eye and direction, and every one examined by him and altered, until it met his approbation."[27]

---

[22]"An account of seven additional cases of stone in the bladder, in which the operation of Lithotripsy was successfully performed," *American Journal of Medical Sciences* 19 (1836), pp. 52–65; "Report of four additional cases of stone in the bladder, in which the operation of lithotripsy was successfully performed," *American Journal of Medical Sciences* 21 (1837), pp. 13–24; "Clinical lectures. Pennsylvania Hospital. Lithotripsy. Wednesday, April 18th," *Medical Examiner* 1 (1838), pp. 159–62.

[23]Meigs, "Jacob Randolph," in Gross, *Lives*, p. 517. Randolph's central role in the introduction of lithotripsy in America was acknowledge by the surgeon Henry H. Smith in the preface to his translation of Civiale's work on calculi. The dedication read: "To J. Randolph, . . . Knowing the strong interest you have long taken in every subject connected with lithotripsy, and your high opinion of M. Civiale, I take the liberty of offering you this translation of his work, . . . as an acknowledgement of the pleasure that I have derived from witnessing your operations on lithotripsy." Henry H. Smith, trans., *Of the medical and prophylactic treatment of stone and gravel. With a memoir on the caluculi of cystine. by Civiale, M.D.* [Dunglison's American Medical Library] (Philadelphia: A. Waldie, 1841), iii.

[24]"William Gibson (1788–1868)," Kelly and Burrage, p. 339.

[25]Gibson, *Institutes*, 3rd ed. (1832) II, p. 386.

[26]Gibson, *Institutes*, 4th ed. (1835) II, pp. 236–37.

[27]Gibson, *Institutes*, 4th ed. (1835) II, p. 237.

Gibson encouraged American surgeons to abandon Civiale's lithotriptor and adopt the lithotripsy instruments of Jacobson and Heurteloup.[28] He nevertheless admired Civiale and visited him while abroad in 1839. Gibson met Civiale at the Hopital Necker in June and watched him perform lithotripsy. He was awed by the experience, and described it as follows: "Although I was prepared to meet with great dexterity on the part of Civiale, I had no just conception of the extraordinary facility with which he maneuvered his instruments, . . . the instrument seemed to be *gliding along* under its own weight and power, rather than from any effort of the operator. This indeed, is the great peculiarity of Civiale, and the foundation of his success . . . ."[29] Gibson concluded that "to see and know him and witness his performances, is *alone* well worth a trip across the Atlantic."[30]

I draw the following conclusions from this brief study:

1. Lithotripsy made its way to America in a fairly short period of time, and medical journalists played a significant role in this process.

As noted above, Jean Civiale performed the first successful lithotripsy in 1823. Within a matter of months, several American doctors copied his procedure. None proved successful until Depeyre in 1830, but they all shared the belief that a new day in surgery had dawned. Their initial enthusiasm was soon dampened by repeated failures to perform lithotripsy in America. Nevertheless, the speed of this transfer is remarkable, especially given the absence of telecommunications and rapid trans-Atlantic vessels. Every news story on lithotripsy, every discussion of its merits by Civiale, and every attack by his adversary, Velpeau, appeared in the American medical press. (They even read about a certain Professor Wattman of Vienna, who

---

[28]William Gibson, "A sketch of lithotripsy, with cases," *American Journal of Medical Sciences* 18 (1836), pp. 338–66. Discussion and illustration of Heurteloup and Jacobson instruments used in cases from June 1835 to June 1836. The article distinguished between lithotrity and lithotripsy (the former was risky, even in the hands of Civiale, while the latter was less so, particularly with the instruments of Heurteloup and Jacobson).

[29]William Gibson, "Introductory lectures, delivered at the University of Pennsylvania, November, 1839," *Medical Examiner* 2 (1839), pp. 725–39 as quoted on p. 738.

[30]William Gibson, *Rambles in Europe in 1839* (Philadelphia: Lea and Blanchard, 1841), p. 93.

performed lithotripsy in May 1827 for the first time.[31]) Review articles, in particular, gave a full account of these vicious debates, and may be worth reading by historians today. As Reynell Coates, author of the best American synopsis of the Civiale-Velpeau debate noted, "The damps of three thousand miles of ocean have a wonderful effect in cooling the warmth of an argument."[32] The lithotripsy "controversy," if we may call it that, therefore provides striking evidence of the vitality of American medical journals, which avidly followed medical events in Europe. Medical journal editors thus played a major role in encouraging American surgeons to embrace this dramatic new technique.

2. *Successful transfer depended upon Americans visiting Europe to see the technique firsthand and to obtain appropriate instruments.*

Again and again, American surgeons visited Civiale to make direct personal contact with the pioneer of this technique and to watch him demonstrate his instruments. For Americans, no visit to Paris in the 1830s was complete without a call upon Civiale at the Hopital Necker. They also made it a point to purchase lithotripsy instruments, preferably models approved by Civiale. Only one or two Paris instrument makers, notably Charriere and Luer, could be relied upon to supply properly fashioned instruments. Indeed, Americans would continue to rely upon foreign makers of lithotripsy instruments for many years. When Henry Jacob Bigelow introduced litholopaxy in 1878, for example, he turned to Collin, Charriere's successor, for the fabrication of the prototype instruments.[33]

3. *Lithotripsy won only conditional acceptance, and did not replace lithotomy.*

Even partisans such as Jacob Randolph and William Gibson admitted that lithotripsy would never entirely supersede lithotomy. Many surgeons were deterred by the complexity of a procedure that depended so much upon the experience, dexterity, and quality of instrument available to the operator. As J. P. Hopkinson of

---

[31]"Lithotrity," *American Journal of Medical Sciences* 5 (1829), p. 221.

[32]R. C. [Reynell Coates (1802–1886)?], Review of "Rapport et Discussions a l'Academie Royale de Medecine sur la Taille et la Lithotritie, suivis de Lettres sur le meme subject [sic], Par MM. Delmas, Souberbielle, Rouchoux, Civiale, Velpeau. Paris, 1835. p. 194." *American Journal of Medical Sciences* 17 (1835), p. 118.

[33]See Edmonson, "Charriere Instruments in America," *Caduceus* 4, 2 (Summer, 1988), pp. 47–57.

Philadelphia noted in 1830, "the difficulty of any operation will only tend to take it out of the hands of the many, and to place it in the power of a few, who will persevere to overcome every obstacle, and who therefore must finally succeed."[34] Randolph and Gibson therefore urged fellow surgeons to become masters of both lithotomy and lithotripsy, and to use one or the other as circumstances indicated.[35]

---

[34]J. H. Hopkinson, "On Lithontripty," *American Journal of the Medical Sciences* 5 (1830), p. 364.

[35]"Upon the whole, it may be stated that as *lithotrity* can never entirely supersede *lithotomy*, though it will undoubtedly greatly curtail it, the surgeon should strive to make himself so familiar with both operations, and with calculous disorders, as to be able to determine the kind of operation adapted to each particular case, and prepared to perform either, as occasion may require. Upon his *judgment* in this respect, I venture to predict, will his success, or failure, in a great measure depend." Gibson, *Institutes*, 4th ed. (1835), II, p. 243.

Book Reviews

Orville P. Horwitz, *From Mount Olympus to the Moon*. Rutlege Books.
John McClenahan, *Travels*. Spectrum Press.

George Ross Fisher, III

The College should feel highly honored that two of its most senior fellows have recently published books about the current professional environment, just as I feel especially honored to review books by two dear friends of long-standing. Their books are very different, just as the authors are, but in the final running, on different horses, they reach the same finish line. They feel that the medical profession is in trouble.

Pete Horwitz has chosen to speak of our profession in the form of a novel about medical history, using the vehicle of the hero's successive reincarnation from ancient Egypt to the American Air Force. After an entertaining narrative, the reader is left with the image of an old doctor, nodding over his history book, reflecting on how we ever got to where we are. The novel describes some enemies, insurance companies and hospital administrators, as well as many heroes such as Galen and Sydenham. Those who know the author can detect the amusing presence of some contemporary Philadelphians under alias and some personal anecdotes in costume. The book does not offer new scholarly discoveries, but the author's research is not only detailed enough for a novel but probably deep enough for most tastes. In his books, as in his career, Horwitz takes sides without apology. Having served on the admissions committee of Penn's medical school for decades, he knows what he wants in a doctor and has been able to find such persons. He likes, for instance, football players who are scientists and if they are a little uncompromising, that is an asset as well. In this novel, Sydenham is portrayed as a hero and identified as the father of clinical investigation. Others have pointed

out that Sydenham fled from patients with plague in London, apparently preferring to publish rather than perish. As the wearer of a Bronze Star with two oak-leaf clusters from the Battle of Midway, Horwitz knows that you do not win wars without taking casualties.

Both of these exemplary physician authors flirt with their Philadelphia audience, occasionally dropping personal hints that may not be easily appreciated beyond the Schuylkill. Both men are notoriously gregarious in person but both are hard to know, sliding out the door when an arm is put around them. John McClenahan has given us a much more personal collection of essays about the turning points in his life, writing with an elegance that finds few equals this side of the eighteenth century. He tells us of four marriages and several deaths, of a private radiology practice in his home, run with courtesy and compassion that shows managed care for the travesty it really is. Even fee for service radiologists in the good old days were shamed into silence to hear of his giving breakfast to patients after a fasting barium study or a shot of whiskey to a patient with a fracture. He always took the first film of a study himself, after personally having taken the patient's history. This is not a theory or a management plan; this is the life he truly lived.

Everybody's favorite toastmaster has a little motto slipped in, "Even a poor after dinner speech is better than no after dinner speech." But the loving care and grace with which McClenahan composes is revealed in a little essay on the "Death of Brevity" that concludes with Samuel Johnson's growl that what is written with ease is read with effort. McClenahan's majestic tribute to the Pennsylvania Hospital before Medicare (A Garland for Receive) has appeared in print at least three times in twenty years, each different but better than the last. It has been said that the history of Pennsylvania Hospital is the history of American medicine. The hospital certainly pressed its indelible stamp on every intern, not least these two authors. One had considered becoming a mathematician, the other a clergyman, but both emerged from that internship with a single lodestar: before becoming a specialist you must first be a doctor and being a doctor was judged by the standards of the Pennsylvania Hospital.

Horwitz sees medicine as a discipline and a science; McClenahan sees it as a calling. Both of them feel that it is currently failing its mission. Both acknowledge that their own reach has at times exceeded their grasp. In a curious way, so characteristic of old Philadelphia, both authors were related to an important figure in the development of contemporary health insurance, the Board Chairman of Blue

Cross, Orville Bullitt. One was his son-in-law, the other his cousin. Both authors loudly rebel against the distortions imposed on the profession of medicine by the insurance industry, but it seems to me that Bullitt ultimately had his way with both of them, as the insurance viewpoint is reflected in their prose.

Our profession has had its share of incompetents and we cannot entirely resolve the conflicts that arise from making a good living from the sick. As long as we, ourselves, remain the harshest critics, we can honorably stand before judgment.

I urge that the fellows of the College read both books and think further about what is being said. John McClenahan is the better writer, but Pete Horwitz ultimately has the best and final word. Our profession is thousands of years old, far older than legislatures and insurance companies. We shall overcome.

Memoir
W. Robert Penman, M.D., 1920–2000

Luigi Mastroianni

On January 9, 2000, W. Robert Penman succumbed to the effects of the cardiomyopathy that had troubled him for nearly twenty years. In 1982, his life in rural Pennsylvania had brought him into contact with the spirochete, *Borrelia burgdorferi,* at a time when what is now known as Lyme disease was not a recognized clinical entity. His initial cardiac episode was preceded by a tick bite to which he had a marked reaction consisting of a red lesion with a clear center, a typical bull's eye pattern. As was the custom in 1982, this reaction was dismissed as an innocuous response to an insect bite, with no awareness that the bite had transmitted a spirochete capable of creating havoc with a number of organ systems, in Bob's case, the heart. Some years later, it became evident that many of the health problems that Bob was experiencing could be related to the presence of a Lyme infection that had remained uncontrolled and untreated over time. Bob was often bemused by the casual way in which we accept the population explosion of the Eastern whitetail deer that carry the deer tick vector for *Borrelia burgdorferi.* Deer are now all-too-common in our suburbs and in the woody knolls of the rolling Pennsylvania countryside. Eventually this led Bob Penman, in his characteristic evangelical way, to buttonhole Pennsylvania legislators in an effort to address this problem. It made no sense to him to ignore the fact that these deer harbored a serious infectious organism that had debilitated countless victims. He often referred to our attachment to the uncontrolled herds of deer as the "Bambi syndrome." On the subject of Lyme disease, he reminded his friends that Sir William Osler had commented on another serious spirochetal disease with the phrase that "he who knows syphilis knows medicine." Bob urged practitioners in our area to include Lyme disease in their differential when the etiology of bizarre forms of arthritis, cardiomyopathy, arrhythmias, or neurological symptoms eluded them.

Bob Penman was born in Avalon, a suburb of Pittsburgh, Pennsylvania in 1920. The local high school, Mt. Lebanon, was one of America's premier public high schools and this experience prepared

him to proceed on to Philadelphia, briefly as a chemical engineering student at Villanova but subsequently transferring to the Wharton School of the University of Pennsylvania to study international banking. While at Wharton, Penman contracted a life-threatening streptococcal infection for which he was treated by Dr. Evelyn Bunting, a family practitioner who was well known in Philadelphia. This experience convinced Penman that medicine was the career he wanted to pursue. He took additional courses in chemistry at the University of North Carolina and applied to medical school at Temple University, where he was promptly accepted. As a medical student, he was, as were so many others, soon impressed by the program established by Robert Wilson, the newly arrived Chairman of Obstetrics and Gynecology. After receiving his M.D. in 1945, Penman proceeded into an internship and residency in Obstetrics and Gynecology with Dr. Wilson. Along with four other medical schools, Temple's program had an ongoing affiliation with the Philadelphia General Hospital (PGH). During Penman's final year of residency, Isadore Forman, Chief of Obstetrics and Gynecology at PGH, suffered a ruptured peptic ulcer and was incapacitated. Wilson turned to Penman to fill in for Forman, and this was the beginning of Penman's academic career. He became full-time faculty at Temple University Medical School until he was recruited to Hahnemann Medical School in 1951 by then Chairman of Obstetrics and Gynecology, Dr. Newlin Paxon. After five years at Hahnemann, where his excellent teaching was widely recognized by students and residents alike, Penman moved to a Hahnemann affiliated facility in Chester County, where he developed a large cadre of loyal patients. Recognizing a pressing need for improved public health policies in Chester County, Penman headed the local medical society's committee on public health. His efforts resulted in the appointment of a physician as the medical examiner or coroner for the first time in over 200 years. Penman continued to be a clinical innovator as well. He helped introduce the concept of "natural child birth" to the Bryn Mawr area and beyond. The plight of migrant workers from Mexico and Puerto Rico employed by rose and mushroom growers in Chester County engaged Penman's energy for more than a decade. He organized special clinics for the workers and their families, working with physicians in the area to improve the quality of available medical care. Recognizing the importance of early education, Penman led an effort to organize a Headstart Program in Chester County that could provide educational opportunities for the migrant community. His effort was recognized at the national level when he received a commendation

from Dr. Julius Richman, then Secretary of Health and Human Services.

Upon observing the growing problem presented by malpractice suits, especially in the field of Obstetrics and Gynecology, Penman launched a campaign to address this problem. As President of the Obstetrical Society of Philadelphia, he established a commission that enabled surgical specialists in the Philadelphia area to communicate more effectively with the legislature and other influential bodies. Although this effort was not entirely successful, it began focusing attention on what would soon become a national problem of enduring dimensions.

Penman practiced in Chester County from 1956 to 1999, sharing an office with his wife of more than fifty years, Dr. Dorothy Lansing. They were often seen together at medical meetings and were particularly committed to the College of Physicians of Philadelphia as well as the Obstetrical Society of Philadelphia, two of the oldest such institutions in the United States. Penman was a medical history buff, and his interest in the history of obstetrics and gynecology was further stimulated by exposure to the archives of the College of Physicians and by colleagues who were members of the American Association for the History of Medicine (AAHM). Penman was a council member of the AAHM from 1980 to 1982.

As a result of Drs. Penman and Lansing's professional activities and their interest in the history of medicine, they were proposed for membership in the College of Physicians in 1974, thus beginning the long relationship between the Penmans and the College of Physicians. Bob Penman recognized the College of Physicians as a precious resource both as a repository for historical documents and as a force for advancing education and collegiality.

Bob Penman was particularly concerned about the well-being of the Library of the College of Physicians and spearheaded efforts to acquire the funds needed to maintain this incredibly valuable and important collection. He was also instrumental in the creation of the Lewis Circle, a group dedicated to making new acquisitions for the College's already formidable collection. His interest in the development of gynecology in the city of Philadelphia centered around the life of William Goodell, an important pioneer in American gynecology and the first Professor of Gynecology appointed at the Hospital of the University of Pennsylvania. Bob identified previously overlooked documentation concerning Goodell's directorship of a U.S. Army field hospital in West Chester County, Camp Paoli, that was founded to provide care for Confederate soldiers wounded

at the Battle of Gettysburg. Penman published a monograph on this subject and presented the primary papers to West Chester University, where they are now part of that university's library collection.

Bob Penman's horizon extended beyond the world of his beloved profession, medicine. He was a collector who enjoyed the fine tones of old Pennsylvania furniture and did authentic refurbishing of pieces he located in rural towns. He is survived by his wife of more than fifty years, Dr. Dorothy Lansing; his daughter, Emily J. Penman, M.D., who presently practices surgery in the Wilmington, Delaware area; by Jeffery Allen Penman, M.D., an obstetrician and gynecologist in practice in Logansport, Indiana; by Malcolm Stuart Penman, a chemical engineer in Chicago; and by seven grand-children.

The Samuel X Radbill Collections

Charles Greifenstein

In his professional life, Samuel X Radbill (1901–1987) was a pediatrician and a historian of medicine. These two foci can only suggest the wide range of Samuel Radbill's interests. The several Radbill collections now housed at the College of Physicians of Philadelphia reflect his active, inquisitive, and (in the broadest and best sense) acquisitive nature. Examining these collections was an enriching experience for me.

The majority of the Radbill Collection, about 27 linear feet of material, was given to the College by Samuel X Radbill in the 1980s. These papers document aspects of his life, his active participation in professional medical organizations, his interest in medical history, and the various collecting enterprises from which he built the comprehensive Pediatric Historical Library of the Children's Hospital of Philadelphia.

College Fellow William Helfand's gift of Radbill's bookplate collection, one of only a few such collections in the country, has been housed in the College Historical Library since 1990. This collection contains over 10,000 bookplates from the seventeenth to the twentieth centuries.

As I examined this great collection, two thoughts occurred to me simultaneously: (1) I don't know much about medical bookplates, and (2) there is a lot more to medical bookplates than I imagined. The iconography, which borrows from many cultural traditions, begs for further study. This portion of the collection is truly a special resource for the College.

In 1998 Children's Hospital of Philadelphia placed on permanent deposit with the College an equally important amount of Radbill material consisting of two basic parts. One part is Radbill's book collection of over 2,000 volumes. The Radbill books add to the

College's holdings, providing important editions to the collection. There were occasional duplications of the College's holdings, but a surprising number of volumes were not duplicates. Of the over 400 books classified as rare (broadly defined as being printed before 1801 but including some after that date), roughly two-thirds are not duplicates, a higher proportion than is true of the non-rare books.

Gravitating—as is my wont—to the oldest books, I found that twenty-one were printed in the sixteenth century. The oldest—a non-duplicate—is a 1546 Latin edition of the works of Hippocrates.[1] It is a translation from the Greek by Cornarius (1500–1558), a German physician and scholar. The College owns an earlier printing of the book (also in 1546 but from Basel), but the Radbill edition fills a gap in our extensive holdings in the Hippocratic corpus. Among the other sixteenth-century books is a 1584 edition of *De morbis puerorum* by the Italian Girolamo Mercuriale (1530–1606), an early book devoted to the study of diseases in children.[2] The Radbill copy is the second edition, which was not previously held by the College, although we do have a first edition from 1583. The book contains a notable chapter on stammering.

The other significant part of the Children's Hospital's deposit consists of 32 linear feet of non-book material. At some point an attempt was made to organize the material, but a lot remains to be done to make it accessible to researchers. There are prints, photographs, manuscript lecture notes, some correspondence, pamphlets, autographs, postcards, a few more bookplates, reprints of articles and images, research notes, and typescripts of papers.

These 32 linear feet are currently in blue archival-quality file boxes on shelves of the rare book and manuscript section of the Library's stacks. To see what I might discover, more or less at random, I opened a box and found inside various smaller boxes and some envelopes containing typescripts of papers. In one of the envelopes was a paper entitled "History of Pediatrics in India."

---

[1]*Opera, quae ad nos extant omnia, [auctore] Hippocratis; per Janum Cornarium Latina lingua conscripta, nuperrime, post omneis omnium editiones, summa cura emendata, plurimisque mendis, incuria praetermissis, expurgata*, Venetiis, Ex Officina Erasmiana, apud Vinventium Valgrisium.

[2]*De morbus puerorum: item de veneris et morbis venenosis, quibus adjuncta est censura Hippocrates, [auctore] Hieron Mercurialis*, Basileae, Ex officina Pernea per Conrad. Waldkirch.

I did not remember the piece as having been listed in a bibliography of Radbill's work, so I read the first paragraph:

> The history of medicine in India is older than the Vedas, sacred books handed down by the gods of the Hindus possibly 6000 years ago. The Riveda, which is the oldest of all, already mentioned practitioners of healing of various sorts, even veterinarians. The other vedas, "books of knowledge," of ancient origin are the Yajurvedas, both white and black, the Samaveda and the Atharvaveda. To the last of these is appended the Ayurveda, "knowledge of life," from which come the samhitas, the medical encyclopedias, by Susruta, Charaka, Vegbhata, Madhava, and the unknown author of the *Navabitaka* in the Bower Manuscript.

I had found yet another facet of Dr. Radbill's vast interests, and reading the typescript caused me to reflect on what all these accumulations of a lifetime meant. The Radbill collections clearly had their two foci of pediatrics and history, but so many other subjects were richly represented: religion, art, literature, and folklore among them. I kept coming back to the thought that to Samuel Radbill medicine was so much more than science and policy. There was a concern for people, the awareness that medicine exists in specific cultures at specific times, always having the same concerns but expressing them in different ways. These are valuable and fascinating points of study, all with something wonderful to teach us. This is certainly what I learned from the Samuel Radbill Collections, and I hope I never forget my lesson.

A superb Catalogue of the Samuel X Radbill Pediatric Historical Library of the Children's Hospital of Philadelphia was produced this year by College staff and is available through the Library. Take a look and see what part of Samuel X Radbill's colorful career you would like to explore.

Access to the Historical Collections of the College of Physicians is available to Fellows during regular library hours and by appointment for registered researchers or members of the general public. For further information contact the Historical Library through the College's main number, (215)563-3737x297 or by email at histref@collphyphil.org.

Notes on Contributors

Kenneth Brayman, M.D., Ph.D. is a graduate of the University of Pennsylvania School of Medicine and is currently an Associate Professor in the Departments of Surgery, Medicine, and Pediatrics at the University of Pennsylvania. He has appointments at the Hospital of the University of Pennsylvania and the Children's Hospital of Philadelphia, where he specializes in renal and pancreatic transplant surgery. His laboratory research focuses on transplantation immunology and he maintains an avid interest in the history of surgery. Dr. Brayman first met Victor Satinsky, M.D. in 1995.

James M. Edmonson, Ph.D. is Chief Curator of the Dittrick Museum of Medical History and Associate Professor of History at Case Western Reserve University.

Marc D. Eisen, M.D., Ph.D. is a resident in Otolaryngology at the University of Pennsylvania. He received his M.D. and his Ph.D. in Neuroscience from the University of Pennsylvania in 2000. He was introduced to Victor Satinsky, M.D. in 1996 and met with him several times prior to Satinsky's death in 1997.

Adam Ellis, M.D. completed his surgical training at Episcopal Hospital in 1998. Access to the original records describing the founding of the hospital and its development served as the inspiration for the article included in this issue.

George Ross Fisher III, M.D. has been a Fellow of the College since 1962 and currently serves as Chairman of the Development Committee and as a member of the College's Board of Trustees.

Charles Greifenstein, M.A., M.S. is Curator of Archives and Manuscripts at the Historical Library of the College of Physicians of Philadelphia. He received an M.A. in Literature from the University of Arizona and a Masters in Library Science from Drexel University.

Marita Krivda, M.S. serves as Director of Library Services of Episcopal Hospital and has worked to preserve Episcopal's archives, while still encouraging scholarly access to these unique holdings.

David Levien, M.D. was Director of Surgery at Episcopal Hospital prior to becoming Chairperson of the Department of Surgery at St. Vincent's Medical Center in Bridgeport, Connecticut. In addition to his active clinical practice and teaching responsibilities, he continues to cultivate an interest in the history of medicine.

Luigi Mastroianni, M.D. is the William Goodell Professor of Obstetrics and Gynecology at the University of Pennsylvania. He became a Fellow of the College in 1966 and currently chairs the Lewis Circle. The Lewis Circle supports the Historical Library of the College in its efforts to acquire rare books and manuscripts and assists with the conservation of the current collection.

Marc S. Micozzi, M.D., Ph.D. is Executive Director of the College of Physicians of Philadelphia and former Director of the National Museum of Health and Medicine in Washington, DC. He obtained his M.D. and his Ph.D. in anthropology from the University of Pennsylvania and remains actively involved in medical anthropology. He is the editor for the first textbook on complementary medicine for physicians, now in its second edition.

Staff

Eric Darley	Consumer Health. Reference Librarian
Delcina Esser	Reference Librarian, P.T.
Patricia Filemyr	Document Delivery Clerk
Deborah Franklin	Editor, *Transactions & Studies*
Leroy Green	Facilities Foreman
Charles Greifenstein	Curator, Archives & Manuscripts
Laura Guelle	Cataloger
Ted Hawkins	Custodian
Stephanie Hicks	Receptionist
*Andrea Kenyon**	Director of the K. A. Shaw Division of Public Services
*Dick Levinson**	Director of Public Affairs
Sharon Lutes	Document Delivery Services Clerk
Margaret Lyman	Collections Manager
Joan McKenzie	Coordinator for Technical Services
*Marc Micozzi**	Executive Director
*Antonia Oberthaler**	Director of Fellowship Programs & Services
*Edward Plocha**	Director of Development
Paul Reilly	Mail Clerk
Michael Reynolds	Custodian
Sofie Sereda	Library Administrative Assistant
Suzanne Sickinger	Acting Controller
Gloria Shaner	Director of Education
*Marjorie Smink**	Director of Library (through September 30, 2000)
Barbara Smith	Facilities Rental Coordinator
Jack Smith	Accounts Manager
Roosevelt Smith	Custodian
Chris Stanwood	Historical Reference Librarian
Doris Werner	Fellowship Administrator
Christine Williams	Executive Assistant
Marita Williams	Accounts Receivable Representative
Monica Womack	Database Administrator
*Gretchen Worden**	Director of Gallery and Museum

*indicates senior staff members

Research Reports
VISITING SCHOLARS OF THE WOOD INSTITUTE 41

Studies

Pictures of Episcopal Hospital, Philadelphia, PA: Part I (1851–1926) 75
ADAM W. ELLIS, DAVID LEVIEN, AND MARITA KRIVDA

Victor Satinsky (1912–1997) and the Success of His Partially Occluding Vascular Clamp 87
MARC D. EISEN AND KENNETH L. BRAYMAN

Historical Aspects of Contemporary Complementary Medicine 105
MARC S. MICOZZI

Lithotripsy in America: Transfer of the Technique from Europe, 1824–1840 117
JAMES M. EDMONSON

From the Fellowship

Two Book Reviews 125
GEORGE ROSS FISHER, III

Memoir: W. Robert Penman, M.D., 1920–2000 128
LUIGI MASTROIANNI

From the Archives

The Samuel X Radbill Collections 132
CHARLES GREIFENSTEIN

Notes on Contributors 135

Staff 137

TRANSACTIONS & STUDIES
OF THE
COLLEGE OF PHYSICIANS OF PHILADELPHIA

Series V Volume XXII December 2000

Editorial v
DEBORAH JULIE FRANKLIN

Transactions

Report of the President of the College of Physicans of Philadelphia 1
CHARLES T. LEE

Report of the Executive Director 5
MARC S. MICOZZI

Annual Reports of the Thematic Sections
Section on Medical History 11
A. DEBORAH GOLDSTEIN
Section on Public Health and Preventive Medicine 15
RICHARD J. COHEN
Section on Arts-Medicine 17
PERRY OTTENBERG
Section on Medical Ethics 19
THOMAS W. LANGFITT

Annual Report on Public Relations Activities 21
RICHARD LEVINSON

Annual Report of the Shaw Division of Library and Public Services 25
ANDREA L. KENYON

Annual Report of the Library 31
MARJORIE SMINK

Annual Report of the Wood Institute for the History of Medicine 37
MARJORIE SMINK

Financial Report of the College of Physicians of Philadelphia FY 1999 39
SUZANNE SICKINGER

Continued on inside of back cover